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TRY ARITHMETIC

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THE

"TRY" ARITHMETIC,

FOR ALL CLASSES OF SCHOOLS.

SPECIALLY PREPARED TO MEET THE REQUIREMENTS
OF THE MUNDELLA CODE.

BY

DENNIS HEYWOOD, C.M.,

EBBERSTON SCHOOL, YORK.

JOHN HEYWOOD,
DEANSGATE AND RIDGEFIELD, MANCHESTER;
AND 11, PATERNOSTER BUILDINGS,
LONDON.
1884.

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PREFACE TO NEW EDITION.

THE preparation of the "Try" Arithmetic has been to the Author a long and laborious task. The plan is original and unique. It has been prepared not only to meet the increasing requirements of New Codes, but is specially designed to assist Head Teachers of large schools, in fully, quickly, and safely superintending the Arithmetical work of each Standard; whilst to the teacher in smaller schools it will be found invaluable, enabling him to teach carefully and superintend completely at the same time. Amongst its characteristic features the following are conspicuous:—

1. The gradation is careful and complete.

2. The arrangement is most convenient for home lessons, class, or individual work.

3. The whole is divided into parts corresponding to the respective Standards of the New Code.

4. Each part contains four sections, which it is advisable to take in the respective quarters of the school year.

5. The last quarter's work in each part consists of Inspectors' Tests, which are similarly constructed, and given in the same language as many recently given by Her Majesty's Inspectors in different districts. In this respect alone the book is very valuable, as each Test contains a good guarantee, if correctly rendered, of passing the Government Examination. No Test is crowded with extraneous matter.

6. The answers can be corrected much quicker and safer than those of any other Arithmetic yet published. (See opinions of Head Teachers on following page.) In this respect the Author challenges competition.

7. Each part is complete in itself, and to suit sharp scholars goes a little beyond the actual requirements of the Mundella Code, 1884.

My sincere thanks are due to the many Head Teachers, who, having used this little work and cards in their old form, have kindly borne testimony to their excellence and practical utility.

DENNIS HEYWOOD.

OPINIONS.

Mr. A. STONES, Head Master, St. Paul's Schools, Kersal, Manchester, writes:—
"I have used the 'Keyless Try Arithmetic and Cards' in my school with the most beneficial results. The exercises are numerous and well graduated. The answers may be very quickly examined, and the errors easily detected."

Mr. RICHARDSON, Head Master, Board Schools, Brompton, York, writes:—
"A special object with me for some 12 years back, has been to find a thoroughly good book of arithmetical examples, which would occupy a class steadily with well graduated stiff sensible sums, until the last few moments of the lesson, and admit of my marking the whole as rapidly as I could glance over the answers.
"This I have at length found in the 'Self-testing Try Arithmetic,' and in my school the wearsiome time-wasting reference to books or cards of answers is now, as a rule, a thing of the past.
"Mr. Heywood has no need to grudge due praise to the many excellent self-testing Arithmetics already in the market, for while combining their good qualities, he manages in such a manner to avoid their weaknesses, that his work must stand unique in its usefulness to teachers."

Mr. J. ARCHER, Head Master, Cefn Board Schools, Ruabon, writes:—
"The 'Self-Testing Try Arithmetics and Cards' are decidedly good, no other yet in the market will compete with them, and there is no doubt of the results by using them, the work will be of a superior order. Another thing is with regard to the Answers. No Answer Sheet is required, for not only can the teacher tell at a glance that the answer is incorrect, but he can also tell the exact figure. This ingenious plan is, I believe, quite unique."

Mr. J. W. YATES, Head Master, Scalby National School, Scarborough, writes:—
"We have used, with excellent results, the 'Self-Testing Try Arithmetics and Cards.' They consist of well-chosen and carefully-graduated sums and problems. They are admirably adapted to the Mundella Code, and the sums can be corrected so rapidly, and easily, that I can manage two or three classes in the Arithmetic lesson, better now than I could one class before."

Miss C. A. PARRY, Head Mistress, St. Andrew's Schools, Manchester, writes:—
"The 'Self-Testing Try' Arithmetic is well graduated, and the examples numerous and varied in character. The method of Correcting is very expeditious, and the arrangement well adapted for Home Exercises."

Mr. J. GRIMSHAW, Head Master, National Schools, Rhosymedre, N. Wales, writes:—
"I have used your 'Try' Arithmetics, and find them very good and useful. They are carefully graduated, and the readiness in which the answers can be deciphered without the bother of finding the answer on a card, is a capital feature of these excellent Arithmetics. The amount of labour spent in their production should secure for them a wide circulation."

"National School, Thornton Dale, Pickering, 14th April, 1884.
"Dear Sir,—Every page of your 'Try' Arithmetics bears the impress of a practical teacher. Apart from the fact of the questions being self-testing—a great boon with large classes—I consider them among the best in the market.—Yours truly, THOS. ANDERSON, Head Teacher.—Mr. D. Heywood."

"I have used all the Standards of the 'Try' Arithmetic, and find the exercises well arranged, very numerous, and of great variety. The system of examining the work is the easiest, quickest, and most accurate I have yet seen, and will greatly facilitate the working of large classes. I have great pleasure in recommending the books to any teachers.—Yours truly, W. L. DANIELS, National Schools, Wykeham, York."

"Girls' Grammar School, Ripon, Aug., 1884.
"Sir,—I have long intended to express to you my obligations for the saving of my time, which your capital series of 'Try' Arithmetics has afforded. I use all Standards of them. Besides the great facility which your systems of answers affords for correcting the sums, the fulness of the examples, the many exercises in numeration, and the large number of problems, which, though not too difficult, still oblige the children to use their reasoning powers, are features which have pleased me. I find the series a very useful and valuable adjunct to other large arithmetics which we have in use. Again let me express my thanks for the hours of time which the use of your Arithmetics has saved, and remain, faithfully yours, SARA SNOW (Principal).

HEYWOOD'S "TRY" ARITHMETIC.

PART I.

ADDITION.—Ex. I.

A

1	2	3
3	6	9
6	9	7
9	2	4
6	9	8

4	5	6
25	58	81
81	14	47
47	70	3
3	36	69
54	34	14

B

1	2	3
14	47	70
70	3	36
36	69	92
96	99	22

4	5	6
36	69	92
92	25	58
58	81	14
14	47	30
22	2	32

C

1	2	3
25	58	81
81	14	47
47	70	13
75	88	91

4	5	6
61	25	56
14	58	85
47	81	35
70	15	57
42	57	5

D

1	2	3
92	9	8
75	8	17
53	7	12
20	12	2

4	5	6
49	68	98
97	74	64
75	39	37
21	87	28
70	47	91

E

1	2	3
42	54	47
69	61	32
73	39	97
82	87	82
29	18	45
26	65	24

4	5	6
23	39	38
41	14	13
38	10	60
75	68	92
42	74	14
96	83	97
15	45	22

F

1	2	3
28	34	49
79	21	57
86	48	65
94	87	74
21	75	89
31	77	11

4	5	6
17	14	60
20	70	10
84	89	74
69	52	16
33	29	88
81	76	89
44	21	17

G

1	2	3
46	13	83
89	14	77
39	3	54
76	12	63
42	2	36
68	4	99

4	5	6
34	31	49
43	43	94
65	83	39
56	38	93
67	47	67
76	96	12
75	82	70

H

1	2	3
97	93	27
57	7	68
35	91	98
74	83	87
68	71	65
97	87	91

4	5	6
36	84	71
76	60	84
81	74	93
39	63	21
83	41	64
70	63	74
55	59	41

I			J			K			L		
1	2	3	1	2	3	1	2	3	1	2	3
43	64	73	92	81	79	59	73	67	98	74	36
34	46	39	23	68	97	87	84	74	38	87	64
98	91	34	68	24	87	68	95	85	49	64	75
84	87	63	73	36	73	79	86	96	58	93	86
36	64	71	21	24	25	89	80	87	49	12	97
91	13	84	45	93	54	91	28	54	95	81	85
14	21	24	87	65	67	18	49	63	84	97	35
52	70	72	67	89	28	39	40	14	89	57	92
4	5	6	4	5	6	4	5	6	4	5	6
81	79	60	13	78	80	65	36	37	47	58	69
84	30	4	50	80	7	27	32	21	87	64	39
37	7	46	36	7	78	38	43	10	23	47	16
30	81	69	39	36	83	49	54	89	98	27	82
35	43	87	87	24	99	51	65	97	89	69	93
54	24	14	84	93	37	62	76	68	92	98	84
33	18	49	57	80	45	73	87	93	12	86	95
67	87	47	69	60	56	84	98	83	84	79	86
43	99	96	80	62	40	96	59	57	43	52	21

M			N			O		
1	2	3	1	2	3	1	2	3
206	217	89	182	465	29	487	114	315
197	87	746	397	78	587	112	56	216
187	291	4265	51	95	26	67	502	147
4	5	6	4	5	6	4	5	6
203	80	7	70	103	201	175	275	39
10	7	90	9	300	90	164	89	487
127	308	185	87	57	307	198	276	65
272	223	342	482	194	62	147	50	105

P			Q			R		
1	2	3	1	2	3	1	2	3
			169	238	78	78	398	69
4584	3081	3340	176	270	239	200	74	73
898	2786	1321	149	106	260	209	120	402
620	241	1453	234	121	165	283	185	240

4	P 5	6
309	227	198
2784	86	64
1459	94	173
1568	307	286

4	Q 5	6
120	103	60
9	60	3
100	20	408
317	509	20
203	64	272

4	R 5	6
400	70	2030
29	400	2000
203	4	49
80	306	2003
79	18	1023

1	S 2	3
1239	1063	1972
3540	1786	1387
217	2493	2965
2116	1777	802

1	T 2	3
380	152	416
237	73	87
149	529	300
58	78	137

1	U 2	3
139	89	98
47	106	76
163	300	304
485	270	300
38	115	110

4	5	6
479	896	221
893	1987	84
4295	1853	280
687	1694	196
779	710	35

4	5	6
60	47	168
207	19	210
150	198	308
300	330	73
131	262	105

4	5	6
138	200	87
200	78	200
76	984	1684
289	2706	793
107	4004	5020
86	132	328

1	V 2	3
1806	684	708
971	1600	201
230	2107	470
2107	3168	6326
3006	569	431

1	W 2	3
375	240	182
163	208	306
187	71	90
121	364	331
72	44	27

1	X 2	3
227	307	183
39	306	306
270	21	186
204	150	190
232	197	125

4	5	6
1001	1008	683
980	270	2007
780	1436	120
643	2900	2145
4006	1870	2806
734	668	399

4	5	6
178	287	169
160	63	186
197	20	194
220	305	135
139	200	143
51	79	136

4	5	6
130	1217	2386
21	1896	987
172	743	1406
363	1690	390
108	1807	2817
205	1755	1131

Y			Z		
1	2	3	1	2	3
1387	217	1396	1706	107	106
1986	1890	1281	1217	142	217
1493	1008	1704	1897	8	107
1308	763	1389	1643	106	108
2760	2107	2673	1203	210	300
192	3150	701	1514	447	192
4	5	6	4	5	6
1003	607	2000	100	207	101
706	210	800	98	80	81
870	803	893	176	164	262
2008	2000	217	184	139	157
400	4000	1016	137	173	231
1300	876	2340	169	124	13
2866	666	1905	176	163	215

Test (1).			Test (2).		
1	2	3	1	2	3
338	289	476	2641	2680	3881
137	178	270	1654	1208	4008
164	16	29	1543	1806	1067
128	219	208	1432	1100	187
173	180	86	1210	1200	308
130	198	21	1650	2146	699
4	5	6	4	5	6
1876	604	1967	1210	218	1618
924	703	1084	1387	2100	2107
2008	900	893	1013	1007	1003
1763	690	2006	1810	1608	1210
1712	6327	178	1600	1310	1600
1007	806	2608	1103	2417	1083
810	80	1384	2037	1510	1559

ADDITION.—Ex. II.

This Mark + called Plus, is the Sign of Addition as 18 + 3 = 21.

A.

1. 607 + 3809 + 2987 + 1643 + 1144
2. 786 + 3907 + 4098 + 669 + 740
3. 8 + 97 + 608 + 76 + 333

B.

1. 7 + 60 + 409 + 86 + 571
2. 719 + 47 + 60 + 8 + 310
3. 131 + 87 + 306 + 601 + 30

C.

1. 27 + 305 + 49 + 236 + 549
2. 387 + 604 + 19 + 8 + 159
3. 63 + 9 + 803 + 54 + 259

D.

1. 3 + 50 + 608 + 473 + 65
2. 786 + 987 + 804 + 396 + 8137
3. 977 + 2069 + 7001 + 278 + 796

E.

1. 2378 + 2409 + 2786 + 3000 + 559
2. 683 + 2430 + 708 + 69 + 7253
3. 786 + 8543 + 279 + 800 + 746

F.

1. 4697 + 308 + 3 + 6097 + 60
2. 806 + 2039 + 8008 + 47 + 276
3. 390 + 9003 + 1704 + 5 + 85

G.

1. 687 + 2403 + 91 + 8008 + 9
2. 632 + 9107 + 487 + 964 + 19
3. 4165 + 73 + 6918 + 57 + 7

H.

1. 238 + 49 + 67 + 818 + 52
2. 97 + 65 + 710 + 303 + 61
3. 67 + 230 + 605 + 300 + 46

I.

1. 98 + 176 + 230 + 149 + 607
2. 39 + 4 + 386 + 805 + 38
3. 60 + 49 + 400 + 707 + 68

J.

1. 339 + 47 + 806 + 9 + 95
2. 687 + 1008 + 9576 + 97 + 740
3. 385 + 3407 + 8306 + 20 + 2

K.

1. 1603 + 1974 + 8409 + 67 + 79
2. 3709 + 200 + 8108 + 93 + 34
3. 1729 + 47 + 1605 + 8700 + 75

L.

1. 395 + 985 + 698 + 9795 + 295
2. 876 + 5679 + 3987 + 804 + 834
3. 699 + 1608 + 74 + 9 + 9802

M.

1. 387 + 1608 + 1796 + 6204 + 2209
2. 2396 + 200 + 984 + 8006 + 630
3. 9 + 876 + 9403 + 985 + 955

N.

1. 3186 + 493 + 197 + 8265 + 99
2. 54 + 97 + 280 + 867 + 28
3. 9 + 78 + 206 + 844 + 202

O.

1. 89 + 70 + 208 + 930 + 55
2. 497 + 167 + 398 + 103 + 200
3. 384 + 216 + 19 + 83 + 676

P.

1. 12 + 614 + 608 + 73 + 84
2. 689 + 743 + 9201 + 1803 + 668
3. 217 + 600 + 8080 + 4071 + 149

Q.

1. 386 + 907 + 2408 + 97 + 9332
2. 68 + 7754 + 983 + 3690 + 648
3. 2476 + 897 + 982 + 8607 + 194

R.

1. 5080 + 160 + 6076 + 860 + 993
2. 784 + 4329 + 2785 + 4694 + 590
3. 387 + 3694 + 271 + 385 + 8458

S.

1. 678 + 3219 + 371 + 8508 + 432
2. 607 + 890 + 8600 + 3008 + 116
3. 783 + 4213 + 7506 + 210 + 522

T.

1. 386 + 3608 + 2201 + 6621 + 431
2. 985 + 784 + 2308 + 800 + 8383
3. 432 + 293 + 375 + 110 + 218

U.

1. 69 + 87 + 376 + 840 + 70
2. 38 + 476 + 44 + 839 + 59
3. 27 + 306 + 80 + 373 + 684

V.

1. 86 + 294 + 78 + 932 + 94
2. 701 + 600 × 62 + 78 + 57
3. 369 + 3258 + 6147 + 4032 + 306

W.

1. 692 + 581 + 6470 + 369 + 6014
2. 2258 + 147 + 8003 + 698 + 3034
3. 581 + 205 + 4943 + 7287 + 946 + 192

X.

1. 287 + 946 + 2819 + 9320 + 796
2. 876 + 5218 + 906 + 6218 + 964
3. 6786 + 589 + 5547 + 608 + 666

Y.

1. 387 + 814 + 6703 + 6306
2. 3513 + 2743 + 690 + 6802 + 476
3. 701 + 860 + 8010 + 3684 + 983

Z.

1. 1897 + 9798 + 987 + 879 + 691
2. 635 + 356 + 6563 + 5784 + 928
3. 387 + 873 + 602 + 7493 + 4925

SUBTRACTION.—Ex. I.

A

1	2	3
87	49	623
51	10	311
4	5	6
890	761	830
575	443	509

B

1	2	3
375	468	439
51	141	109
4	5	6
852	873	643
519	537	304

C

1	2	3
856	748	569
514	403	221
4	5	6
580	472	683
229	118	326

D

1	2	3
308	704	708
260	292	292
4	5	6
889	763	490
469	339	62

E

1	2	3
726	927	816
294	491	376
4	5	6
832	701	621
388	253	169

F

1	2	3
728	634	859
272	174	395
4	5	6
700	871	983
232	399	507

G

1	2	3
620	703	601
144	223	91
4	5	6
1703	1102	1072
1188	582	547

H

1	2	3
729	625	901
199	90	361
4	5	6
1702	3201	1034
1157	2651	479

I

1	2	3
801	603	621
241	38	51
4	5	6
1210	1703	1000
635	1123	415

J

1	2	3
2071	1306	6071
1481	711	971

4	5	6
1203	1503	1876
591	885	1252

K

1	2	3
1208	1304	1531
578	668	889

4	5	6
1491	1010	1111
843	356	451

L

1	2	3
1207	1346	1001
541	674	323

4	5	6
2222	3333	4444
1538	2643	3748

M

1	2	3
7011	7022	8002
909	914	1888

4	5	6
8901	1321	2101
2781	607	1380

N

1	2	3
1033	1044	1052
305	309	310

4	5	6
3104	791	1603
2355	35	840

O

1	2	3
1101	1203	1304
331	426	520

4	5	6
1780	1005	9001
989	207	1896

P

1	2	3
8001	9012	8130
889	1893	1004

4	5	6
7600	8908	1024
467	1768	208

Q

1	2	3
1140	1014	2206
316	182	1366

4	5	6
2407	3061	900
1559	2205	36

R

1	2	3
1801	3014	1806
929	2134	918

4	5	6
1011	9801	9801
115	1697	1689

S

1	2	3
9027	9300	8203
907	1172	67
4	5	6
9102	9031	9305
958	879	1145

T

1	2	3
1903	1147	1010
985	220	74
4	5	6
1234	1350	1430
289	396	467

U

1	2	3
1215	1300	1456
243	319	466
4	5	6
1000	9405	9606
1	297	489

V

1	2	3
9203	9304	9607
77	169	463
4	5	6
9200	9350	9201
47	188	30

W

1	2	3
9301	8102	6012
121	7082	4982
4	5	6
4019	5946	5038
2979	4896	3978

X

1	2	3
7004	8006	8013
5934	6926	6923
4	5	6
17061	10301	10318
6961	191	198

Y

1	2	3
12010	16023	17039
1880	5883	6889
4	5	6
13000	15903	12030
2840	5733	1850

Z

1	2	3
15076	11021	8710
4886	821	7588
4	5	6
8121	7103	6124
6988	5959	4969

Test 1

1	2	3
7042	6015	9274
5876	4838	8086
4	5	6
3005	8006	2107
1806	6782	871

Test 2

1	2	3
3804	2041	3072
2568	793	1812
4	5	6
6001	2017	1300
4729	733	4

SUBTRACTION.—Ex. II.

A

1	2
9006	70123
4194	28907
3	4
101010	120143
59390	78119

B

1	2
60012	70129
17584	27297
3	4
53026	70081
9790	26441

C

1	2
60217	81063
16173	36615
3	4
61081	70392
16229	25136

D

1	2
92813	81623
47153	35559
3	4
51381	47800
4913	928

E

1	2
70532	61823
23256	14143
3	4
67601	97408
16586	45888

F

1	2
60821	72810
8796	20280
3	4
61083	120691
8048	67151

G		H		I	
1	2	1	2	1	2
71042	101020	212103	310701	210016	381007
16997	46470	156038	254131	151931	322417
3	4	3	4	3	4
210061	61079	121093	310768	123041	702461
155006	5519	64018	253188	63946	107361

J		K		L	
1	2	1	2	1	2
108070	108060	107030	150110	212210	130140
46852	46236	43388	85862	146144	63468
3	4	3	4	3	4
310012	350067	450031	720061	370045	180063
247582	287031	385177	654601	302767	112179

M		N		O	
1	2	1	2	1	2
100647	200743	8300867	6400871	500603	100710
32157	131647	2192753	286751	427768	27168
3	4	3	4	3	4
711011	6121001	130202	140203	150304	160405
14909	18893	58781	68075	76055	85449

P		Q		R	
1	2	1	2	1	2
91067	80001	130700	180010	8978100	9820000
15404	3631	52209	100812	1865981	2700874
3	4	3	4	3	4
102000	310006	1721131	8750016	9002100	8000103
24923	232222	923026	1644904	1875967	866963

S		T		U	
1	2	1	2	1	2
180013	180030	170018	358076	140138	145701
98389	97598	85162	272412	52050	56805
3	4	3	4	3	4
101076	102345	123456	134567	945678	9678011
17836	18297	36984	47287	49574	1573899

V		W		X	
1	2	1	2	1	2
9100246	9307658	8600241	8504466	103546	190027
988126	1187530	456089	352306	9901	95473
3	4	3	4	3	4
9000123	8402030	102041	118703	121074	130107
871987	265886	10214	25967	25611	33735

Y		Z	
1	2	1	2
131423	115080	9201706	9200006
34142	16890	93589	82880
3	4	3	4
170067	999654	9324037	9400135
70968	546	197902	264991

Test (1.)		Test (2.)	
1	2	1	2
9300014	9703014	121063	310106
155861	549852	19033	207066
3	4	3	4
9180147	9206047	280607	304105
17976	34867	176557	199045

SUBTRACTION.—Ex. III.

This Sign "−" called Minus, is the Sign of Subtraction, as 21 − 3 = 18.

A	B	C
1. 3012 − 1788	1. 7013 − 5741	1. 13018 − 898
2. 4006 − 2770	2. 5012 − 3728	2. 14010 − 1878
3. 3067 − 1819	3. 5083 − 3787	3. 78014 − 65870
4. 4013 − 2753	4. 15006 − 2898	4. 38903 − 26747

D	E	F
1. 21003 − 8835	1. 51063 − 38847	1. 4106 − 2767
2 31043 − 18863	2. 21007 − 8779	2- 5103 − 3751
3. 71003 − 58811	3. 71063 − 58823	3. 6203 − 4838
4. 35016 − 22812	4. 4103 − 2777	4. 6315 − 4937

G	H	I
1. 7060 – 5669	1. 16816 – 3673	1. 15106 – 1911
2. 13247 – 143	2. 15172 – 2016	2. 610731 – 597523
3. 70016 – 56899	3. 210076 – 196907	3. 15307 – 2086
4. 30012 – 16882	4. 21013 – 7831	4. 15607 – 2373

J	K	L
78064 – 64817	1. 3214 – 1758	1. 16230 – 2118
2. 58076 – 44816	2. 5104 – 3634	2. 15076 – 950
3. 2073 – 645	3. 2107 – 623	3. 21301 – 7161
4. 3060 – 1618	4. 4150 – 2652	4. 70016 – 55862

M	N	O
1. 72014 – 57846	1. 15002 – 778	1. 24107 – 9827
2. 16037 – 1855	2. 98063 – 83825	2. 3902 – 2372
3. 41061 – 26865	3. 26003 – 1751	3. 6231 – 4686
4. 17003 – 2793	4. 19814 – 5548	4. 7104 – 5544

P	Q	R
1. 6253 – 4678	1. 31067 – 15932	1. 23962 – 8767
2. 3278 – 1688	2. 21064 – 5914	2. 17062 – 1852
3. 61027 – 45922	3. 21234 – 6069	3. 37824 – 22599
4. 31059 – 15939	4. 41074 – 25894	4. 78103 – 62863

S	T	U
1. 34143 – 18888	1. 6017 – 4385	1. 4069 – 2373
2. 41062 – 25792	2. 3107 – 1459	2. 32101 – 15989
3. 42046 – 26761	3. 67890 – 66226	3. 17015 – 887
4. 32067 – 16767	4. 91240 – 89560	4. 19021 – 2877

V	W	X
1. 16720 – 560	1. 112340 – 96116	1. 190134 – 173846
2. 116023 – 99847	2. 113201 – 96961	2. 17032 – 728
3. 68710 – 52518	3. 51324 – 35068	3. 30854 – 14534
4. 35024 – 18816	4. 42060 – 25788	4. 16072 – 14338

Y	Z	Test.
1. 14176 – 12425	1. 114608 – 97489	1. 19004 – 1817
2. 10245 – 8477	2. 131072 – 113936	2. 18103 – 899
3. 6036 – 4251	3. 34056 – 16903	3. 81067 – 63846
4. 60172 – 43070	4. 24749 – 7579	4. 23016 – 5778

MULTIPLICATION.—Ex. I.

This Sign "×" called Multiple, as $7 \times 3 = 21$.

A

1. 1234×2
2. 13405×2
3. 140506×2
4. 1050607×2

B

1. 1060708×2
2. 1070809×2
3. 1080910×2
4. 1091011×2

C

1. 1101112×2
2. 1111213×2
3. 1121314×2
4. 1131415×2

D

1. 1141516×2
2. 1151617×2
3. 1171819×2
4. 1181920×2

E

1. 12304×3
2. 130405×3
3. 1040506×3
4. 1050607×3

F

1. 1070809×3
2. 1080910×3
3. 1091011×3
4. 1101112×3

G

1. 1111213×3
2. 1121314×3
3. 1131415×3
4. 1141516×3

H

1. 1151617×3
2. 1161718×3
3. 1171819×3
4. 1181920×3

I

1. 120304×4
2. 1030405×4
3. 1040506×4
4. 1050607×4

J

1. 1060708×4
2. 1070809×4
3. 1080910×4
4. 1091011×4

K

1. 1101112×4
2. 1111213×4
3. 1121314×4
4. 1131415×4

L

1. 1141516×4
2. 1151617×4
3. 1161718×4
4. 1171819×4

M

1. 1181920×4
2. 1020304×5
3. 1030405×5
4. 1040506×5

N

1. 1060708×5
2. 1070809×5
3. 1080910×5
4. 1091011×5

O

1. 1101112×5
2. 1111213×5
3. 1121314×5
4. 1131415×5

P

1. 1141516×5
2. 1151617×5
3. 1161718×5
4. 1171819×5

Q

1. 11819020×5
2. 1020304×6
3. 1030405×6
4. 1040506×6

R

1. 1060708×6
2. 1070809×6
3. 1080910×6
4. 1091011×6

S

1. 1101112 × 6
2. 1111213 × 6
3. 1121314 × 6
4. 1131415 × 6

T

1. 1141516 × 6
2. 11516017 × 6
3. 116017018 × 6
4. 1017018019 × 6

U

1. 1018019020 × 6
2. 1020304 × 7
3. 1030405 × 7
4. 1040506 × 7

V

1. 1050607 × 7
2. 1060708 × 7
3. 1070809 × 7
4. 1091011 × 7

W

1. 1101112 × 7
2. 1111213 × 7
3. 1121314 × 7
4. 11314015 × 7

X

1. 114015016 × 7
2. 1015016017 × 7
3. 1016017018 × 7
4. 1017018019 × 7

Y

1. 1018019020 × 7
2. 1020304 × 8
3. 1030405 × 8
4. 1040506 × 8

Z

1. 1050607 × 8
2. 1060708 × 8
3. 1070809 × 8
3. 1080910 × 8

Test (1)

1. 1101112 × 8
2. 11112013 × 8
3. 112013014 × 8
4. 1013014015 × 8

Test (2)

1. 1014015016 × 8
2. 1015016017 × 8
3. 1016017018 × 8
4. 1017018019 × 8

EXAMINATIONS.

A			B			C		
1	2	3	1	2	3	1	2	3
478	9421	806	7876	8006	8786	9806	876	786
694	8687	904	943	9913	4978	7863	9037	8073
304	8094	821	7803	3217	786	3001	8426	4687
79	603	9	74	8	93	78	9	94
913	5	270	4316	70	6773	870	3472	8382
4	5	6	4	5	6	4	5	6
407	6071	571	402	603	517	701	1014	3026
38	2159	259	87	285	196	377	687	2696

7. 120304 × 4
8. 10304 × 4

7. 10405 × 4
8. 10506 × 4

7. 10607 × 4
8. 10708 × 4

D			E			F		
1	2	3	1	2	3	1	2	3
6874	7869	8743	7849	6078	7864	6943	7012	7793
8706	9073	9208	9827	706	287	29	6874	8786
6032	874	602	379	9024	8964	7086	976	6978
9	4006	4008	4008	7076	397	943	28	278
603	604	67	767	148	5722	8435	8748	5
4	5	6	4	5	6	4	5	6
1010	2132	1076	1024	3101	2107	3106	2103	1001
677	1796	737	682	2756	1759	2755	1749	644
7. 10809 × 4			7. 11011 × 4			7. 11213 × 4		
8. 10910 × 4			8. 11112 × 4			8. 11314 × 4		

G			H			I		
1	2	3	1	2	3	1	2	3
9876	870	3837	7397	1786	7864	84	58	9009
6842	987	8047	8408	4798	29	6078	7460	5178
9763	987	9821	6786	5617	9062	9324	8787	9867
6874	78	6302	85	9835	7831	7612	9876	8973
3557	990	3208	8842	9785	7338	9329	6549	6
4	5	6	4	5	6	4	5	6
1023	1307	2106	1014	3106	2133	1102	3107	2134
663	1259	1694	598	2686	1709	674	2675	1698
7. 10203 × 5			7. 10405 × 5			8. 10607 × 5		
8. 10304 × 5			8. 10506 × 5			8. 10708 × 5		

J			K			L		
1	2	3	1	2	3	1	2	3
7834	4768	7863	4563	8506	3579	8106	2104	4106
9873	7843	7942	7869	5987	6804	9321	8176	9213
5679	9876	9067	7841	9987	9873	7810	8948	8764
89	2114	3849	9013	9983	7218	9687	9872	7218
9831	9038	5221	4959	85	7377	230	6357	6459
4	5	6	4	5	6	4	5	6
1013	1014	2107	1631	1024	1700	1610	1716	2130
573	570	1659	1179	568	1240	1146	1248	1658

7. 10910 × 5
8. 11011 × 5

7. 11213 × 5
8. 11314 × 5

7. 11415 × 5
8. 11516 × 5

M			N			O		
1	2	3	1	2	3	1	2	3
2079	6187	9843	9437	7067	8107	9832	9106	8642
876	9879	3879	6408	9217	9143	7869	8317	9836
988	7784	9876	7893	8934	7608	5786	9462	6807
866	9876	8943	9834	7862	9806	9873	9871	8983
3	7490	9079	8452	9348	8168	9876	6884	9776
4	5	6	4	5	6	4	5	6
1210	1011	1022	1033	1044	1021	1023	1024	1005
734	531	512	518	524	496	493	489	465

7. 11617 × 5
8. 11718 × 5

7. 11819 × 5
8. 119020 × 5

7. 10203 × 6
8. 10304 × 6

P

1	2	3
9876	9006	9876
8769	9374	9473
9874	9110	9765
8763	8763	7983
7166	8599	8159

4	5	6
1023	1235	1303
478	685	748

7. 10405 × 6
8. 10506 × 6

Q

1	2	3
8943	9832	9742
9876	9706	7846
8735	8887	9873
9869	9998	9754
8237	7641	9253

4	5	6
1042	1074	1306
482	509	736

7. 10607 × 6
8. 10708 × 6

R

1	2	3
9876	9473	9947
9798	9998	9874
8987	8889	8973
9971	9892	9836
8240	9024	9050

4	5	6
1072	1060	2107
497	480	1522

7. 10809 × 6
8. 10910 × 6

S

1	2	3
9817	9108	7896
7896	8765	9327
8764	5873	8769
9179	8764	7864
9876	9321	9329
5483	9689	8840

4	5	6
1003	2104	7103
413	1509	2003

7. 11011 × 6
8. 11112 × 6

T

1	2	3
9833	8064	8063
8334	6732	7969
9468	9079	9873
8321	9938	9807
9027	9810	8432
7547	9412	9396

4	5	6
1216	2107	1101
604	1489	477

7. 11213 × 6
8. 11314 × 6

U

1	2	3
9873	8942	9808
9375	8807	9432
9869	9929	8786
8732	8706	9835
7869	9937	8769
8327	8229	8425

4	5	6
1112	2317	2108
482	1681	1466

7. 11415 × 6
8. 11516 × 6

V			W			X		
1	2	3	1	2	3	1	2	3
9078	7864	9876	9987	8918	6989	9817	8197	899
9374	9873	8774	8764	8817	9876	6893	8286	888
8763	8769	8930	9179	8936	8769	7845	9871	777
6874	7896	9817	9486	9743	7896	9869	8924	666
8943	8749	8976	8103	7968	9321	7843	9877	555
7862	6897	6943	9877	7892	8621	9210	7964	444
4666	6017	3254	1679	5306	6613	7113	5976	871
4	5	6	4	5	6	4	5	6
1207	1301	1458	1640	1725	1838	1474	1027	9001
559	647	798	968	1047	1154	784	331	2899
7. 116017 × 6			7. 1018019 × 6			7. 10203 × 7		
8. 1017018 × 6			8. 1019020 × 6			8. 10304 × 7		

Y			Z			Test		
1	2	3	1	2	3	1	2	3
8917	7991	8972	9806	9347	9889	7986	9321	9876
9876	8764	9836	8073	8769	9980	9874	2987	8874
8764	9321	8473	2987	8832	6875	8726	8694	7769
8976	7864	9834	9864	9876	7896	9763	9732	8064
7490	9872	6829	8432	6754	3217	7892	8766	7893
8769	8765	8766	9064	5439	9865	5769	7893	9275
3187	7026	8174	8093	9765	7896	9870	9987	9765
5239	2221	1546	6717	4860	8630	4974	8080	4550
4	5	6	4	5	6	4	5	6
7306	8201	9017	1803	1703	1405	1327	1001	1208
1198	2087	2897	1089	982	677	592	259	459
7. 10405 × 7			7. 10607 × 7			7. 10809 × 7		
8. 10506 × 7			8. 10708 × 7			8. 10910 × 7		

PROBLEMS.

A

1. I have five bags of marbles; there are 27 in one, 36 in another, 94 in another, 578 in another, and 81 in the other; how many marbles have I altogether?

2. John had 1060 nuts, and Tom 236; how many more had John than Tom?

3. There were 2536 plums on a tree, and the gardener gathered 1704 of them; how many were then left on the tree?

4. An octagon is a figure having eight sides; how many sides are there in 10506 octagons?

B

1. A man has 639 oranges, his son 172, and his daughter 45; how many had they together?

2. If a boy is 1072 days old, and his litttle sister 208 days old, how many days older is the boy than his sister?

3. A man buys 1190 plums, and eats 318; how many has he left?

4. How many feet have 220 dogs?

C

1. I have four packets containing nuts, in one there are 113, in the second 86, in the third 601, and in the fourth 96; how many nuts have I got?

2. If a man sold 9021 papers in one year, and his little boy 917; how many more did the man sell than his boy?

3. A woman had 9101 eggs to sell; when she had sold 989 how many had she left?

4. How many feet have 2030032 pigs?

D

1. One girl sews 1026 stitches in an afternoon, another 2987, another 2453, another 1096, and another 574; how many stitches did they sew altogether?

2. If 9802 slates cover one house, and 1658 slates cover another; how many less did one take than the other?

3. If a box contains 8720 damsons, and I take 568 out, how many remain?

4. How many legs have 2040 sheep?

E

1. In a village near Scarbro' there are 219 men, 286 women, and 413 children? how many persons lived in the village?

2. If a girl had 7175 pins, how many more did she want to make 8102?

3. If a swallow catches 1730 flies in one day, and a sparrow 794, how many less does the sparrow catch than the swallow?

4. How many eyes have 47277 boys?

F

1. A boy sells 159 papers on Monday, 243 on Tuesday, 208 on Wednesday, 167 on Thursday, and 186 on Friday; how many did he sell altogether?

2. A man buys 1024 oranges; he gives his wife 30, and his son 22; how many has he left?

3. A woman went to market with 8765 apples, and sold 7784; how many had she to bring home again?

4. How many ears have 495 girls?

G

1. If a man eats 2040 grapes in January, 876 in February, 295 in March, 8 in April, 9 in May, 30 in June, 50 in July, 300 in August, 200 in September, 300 in October, 2500 in November, and 2500 in December; how many grapes will he have eaten during the year?

2. A farmer has 9203 sheep; in taking them to market 6 died and 80 got astray; how many had he when he got to the market?

3. How many pears must be taken off a tree which has 9304 on it, so as to leave 178 on?

4. How many hands have 4567572 children?

H

1. If one man makes 3102 bricks in a day, another makes 503, another 1548, and another 4,000; how many bricks do they make together?

2. How many marbles will be left in a bag which has 9640 in if a boy takes 478 out?

3. If a dressmaker has 9320 pins and loses 149; how many will she have left?

4. How many noses have 9171180 persons?

I

1. A man keeps 100 game hens which lay 45 eggs daily, 200 Spanish hens which lay 146 eggs daily, and 200 common hens which lay 178 eggs daily; how many eggs does he get per day?

2. The River Dee is 100 miles long, and the River Derwent 61 miles long; how much longer is the Dee than the Derwent?

3. If in a school there are 1002 children, how many are absent if 690 are present?

4. If it takes three horses to draw an omnibus, how many horses will it take to draw 10506 omnibuses?

J

1. A boy makes 7463 figures on Monday, 2029 on Tuesday, 8742 on Wednesday, 9763 on Thursday, and 4127 on Friday; how many did he make during the week?

2. There are 1072 boys in one school, 200 are in Standard I., 150 in Standard II., 150 in Standard III., 100 in Standard IV., 50 in Standard V., 50 in Standard VI., and 48 in Standard VII.; how many infants were there?

3. If Joseph lives 1205 yards from school, and Alfred 878 yards, how many less yards has Alfred to walk than Joseph?

4. If one cage holds three birds, how many birds will there be in 11011 cages?

K

1. If 9376 persons go by railway from Manchester to Liverpool on Monday, 3897 on Tuesday, 4005 on Wednesday, 5004 on Thursday, 1076 on Friday, 9978 on Saturday, how many persons have gone from Manchester to Liverpool in the six days?

2. The River Nile is 3000 miles long, the River Severn 240, the River Thames 210, the Trent 185, and the River Volga 2029; how much longer is the Nile than the other four put together?

3. A man had in his garden 7006 white cabbages, and 6667 red cabbages; how many less red ones had he than white?

4. If a boy gets three good marks every day, how many good marks will he get in 11415 days?

L

1. A farmer has 8076 sheep, 9872 pigs, 8546 cows, 92 horses, and 7962 goats; how many animals has he altogether?

2. If a boy has 1207 words to write in one week, and spells 856 correctly, how many mistakes will he have had?

3. A girl in making an apron and a pocket handkerchief made 1306 stitches; in making the apron she made 952 stitches; how many stitches were there in the pocket handkerchief?

4. How many tails have 35760 cats?

M

1. One fishing boat has 998 herrings, another 976, another 1863, another 975; how many herrings were there altogether?

2. If I have 1070 pennies, and my sister 658, how many less than I would my sister have?

3. A woman went to market with 1231 eggs; 800 she sold, 15 she broke; how many had she to take home again?

4. How many feet have 10506 cows?

N

1. A fisherman catches 9875 fishes in January, 8764 in February, 7963 in March, 9872 in April, and 5954 in May; how many did he catch altogether?

2. A farmer has 1030 sheep, he sold 500, 90 died, and 8 went astray; how many had he left?

3. If 2041 men were wanted to work in a large factory, when 1605 were set to work how many more would be wanted?

4. How many legs have 110111213 horses?

O

1. One ship has 9327 oranges, another 8103, another 9876, another 8975, and another 8571; how many oranges were there in the five ships?

2. 647 gallons of water were used of a cistern which held 1103; how many gallons were left in the cistern?

3. A boy had 1214 marbles in a bag; in going home he lost 54 and sold 700; how many had he left?

4. How many arms and legs have 11617 babies?

P

1. There are 9876 persons living in one town, 8974 in another, 9879 in another, 8976 in another, 9571 in another; how many persons were there living in the five towns?

2. There are 1372 oranges in a basket, 446 boys take two each; how many are left in the basket?

3. If a child is 1187 days old now, how many days is it since the child was 677 days old?

4. A rabbit can eat five small carrots a day; how many carrots would 1030405 rabbits eat?

Q

1. If 9886 persons die of a plague in Manchester, 5947 in Bristol, 9868 in Liverpool, 27334 in London; how many die in the four towns of the plague?

2. A gentleman had 806 trees in his garden, the gardener cut down 271; how many had he left?

3. A girl walks 2069 yards to school, and 2069 yards back; her brother rides 2000 yards going, and 1598 yards in going back. How much farther does the girl walk than her brother?

4. If a cow eats five turnips daily in the winter, how many turnips would it take to keep 10910 cows for one day?

R

1. A man having six apple trees, counts the number of apples on each, on the first he counts 8975, on the second 9860, on the third 9876, on the fourth 8974, on the fifth 9525, and on the sixth 9360; how many apples had he altogether?

2. A man having 608 pennies, spends 30 for oranges and 3 for nuts; how many pennies would he have left?

3. If a comet that appeared in 1596 were to be seen again in 2176; how many years would it have been out of sight?

4. If one boy can work five sums in half an hour; how many sums ought 11718 boys to work in the same time?

S

1. Joseph has 39 sums right on Monday, Mary 74, John 63, Thomas 8; the other children in the school have among them 428 right; how many sums were done right on Monday?

2. If you have 5403 words in your reading book, and an infant has 4785 in his; how many less words are there in the infant boy's reading book?

3. Two men go to Ben Nevis, one goes 1063 feet up, the other 439; how many feet higher has the one been than the other?

4. If the boys in a school work six sums each for home lessons, and 10506 boys are present on the following day, how many sums will there be to examine?

T

1. If a horse carries 390 pounds of potatoes to market, a pony 94, a donkey 80, a man 70, and a boy 14, how many pounds are taken by the lot?

2. Snowdon is 3571 feet high, if a boy goes to the top, and his sister only goes up 2917 feet, how many feet higher was the boy than his sister?

3. A person having 1741 eggs, put them in a machine to hatch, by and by there were 1081 chickens; how many of the eggs were bad?

4. How many legs have 111121314 horses and 111121314 birds altogether?

U

1. A gentleman in Canada has seven farms, the first contains 9986 acres, the second 9964, the third 9921, the fourth 9765, the fifth 9964, the sixth 9872, the seventh 9018; how many acres has he altogether.

2. Mount Blanc is 5463 yards high; if a man goes 4773 yards up it, how far will he have been from the top?

3. A boy has 800 marbles; he plays three other boys; one of them wins 50 from him, from the next he gains 90, and with the last he loses 144; how many marbles has he left?

4. How many ears have 1017018 horses, 1017018 donkeys, and 1017018 ponies altogether?

V

1. A gardener has 8 gooseberry trees, on the first there are 9876, on the second 9854, on the third 9988, on the fourth 9876, on the fifth 7543, on the sixth 9421, on the seventh 6099, on the eight 8764; how many gooseberries had he altogether?

2. Two persons run a race 5400 yards, the first one gets to the winning post when the other has run 4679 yards; by how many yards did he win?

3. One ship carries 8213 qrs. of wheat, another 3000 qrs. of wheat, and a t' ird 4485 qrs. of wheat; how many more quarters did the first carry than the other two?

4. If a lad has seven bags and puts 10506 marbles into each, how many marbles would he have altogether?

W

1. Eleven boys in playing cricket make the following runs: One boy scores 98, another 69, another 200, another 374, another 3, another 12, and the other five nothing; how many were made in the innings?

2. Two boys run a race 1031 yds. long, the first wins by 268 yds.; how far had the other run when the race was won?

3. A man had 1247 apples on a tree, some cowardly boys stole 107 one day, the wind blew 370 off the next day; how many were left on the tree?

4. A boy with seven pockets puts 11112 nuts into each; how many nuts had he altogether?

X

1. Six boys play football, the first kicks it 87 times, the second 65, the third 300 times, the fourth 243, the fifth 8, and the sixth 95; how many kicks did the ball get?

2. Two girls in skipping make 8006 skips, one makes 901; how many does the other make?

3. If one town contains 9300 people, and another 2188, how many more people are there in the one than in the other?

4. Seven girls have a bag each, if I put in each 1017018 nuts, how many nuts should I have given away?

Y

1. A number of girls play shuttlecock, one hit it 98 times, another 76, another 445, another 139, and another 58, how many times have they hit it altogether?

2. Two boys try which can do the most substraction sums in one week, one boy gets 3110 right, the other 2286; how many more has the one done then the other?

3. Gladstone spoke 1076 words one night, Lord Beaconsfield 244; how many more words did the one speak than the other?

4. How many legs have 10506 cats and 10506 dogs altogether.?

Z

1. If a ship goes ten journeys, on the first journey it makes 9987 miles, on the second journey it goes 8765 miles, on the third 9874, on the fourth 9397, on the fifth 8736, on the sixth 9213, on the seventh 8974, on the eight 9893, on the ninth 9876, on the tenth journey when it had gone 1757 miles it sinks; how many miles had the ship gone altogether?

2. Two boats race for a distance of 4500 yards, the winner gets in when the other has been rowed 3628 yards; by how many yards did the first win?

3. Two boys were twins, and when they had been alive 20000 hours it was reckoned that out of that time one had slept 7804 hours and the other 6924; how much longer had the one been awake than the other?

4. How many feet have 11112013 couple of rabbits?

INSPECTORS' TESTS.

TO THE TEACHER.—The test in Standard I., Arithmetic, generally consists of an addition sum of four or five lines, and one or two Subtraction sums, slowly dictated. The children may be placed back to back along the room, or numbered 1 and 2 in the desks, or mixed up among the other standards as the Inspector directs. The following Writing and Arithmetic letters A, B, C, have been given by Inspectors this year, viz:—

Writing.—Fred had got a new spade from his aunt. She had sent it to him one day with a small box of seeds.

Spellings.—Water, wolf, people, milk, bread, grass, house, sheep.

Sums.—Letter A.

A	B	C	D	E	F
1	1	1	1	1	1
3680	9807	706	49	906	9806
9083	963	8930	4730	870	7549
769	49	76	8764	769	3807
8427	8076	7083	421	807	9604
63	3531	6439	9876	560	449
2	2	2	2	2	2
809	593	413	832	702	607
585	365	177	796	387	289
3	3	3	3	3	3
724	806	306	207	820	520
498	576	68	168	502	199

G	H	I	J	K	L
1	1	1	1	1	1
9876	8704	9876	8769	49	9867
3807	9870	8074	7805	9876	159
93	96	6889	9863	8070	8976
8960	4789	7869	849	9865	9830
9085	8665	22	6050	6082	5716
2	2	2	2	2	2
1070	1001	3015	2073	4073	1023
749	674	2682	1734	3728	672
3	3	3	3	3	3
803	606	451	608	716	806
479	276	115	266	368	452

M		N		O	
1	2	1	2	1	2
987	806	360	107	8076	6870
605	9	204	905	9005	509
7	903	928	73	1780	83
310	202	378	105	98	2004
29	37	106	805	155	9667
3	4	3	4	3	4
307	325	506	401	302	403
61	57	296	189	88	187
Write out 6 times table.		Write out 5 times table.		Write out 4 times table.	

P

1. Add up 9806, 7973, 910, 8, and 455.
2. Add together eight thousand three hundred and four, nine thousand six hundred and fifty, one thousand and thirty, one hundred and six, and eighty-one.
3. From 605 take 387.
4. Take two hundred and eighty-seven from five hundred and seven.
5. Multiply 1017018 by 6, and write Six-times Table.

Q

1. Add 9320, 9006, 204, 9, and 651.
2. Add together nine thousand seven hundred and sixty-three, seven hundred and nine, eighty, eight thousand six hundred and fifty-seven.
3. Take 79 from 301.
4. From four hundred and two take one hundred and seventy-eight.
5. Multiply 115161718 by 5, and write out Five-times Table.

R

1. Add up 8, 96, 985, 8976, and 9163.
2. Find the sum of fifty-four, six hundred and ninety-three, nine thousand and eighty, nine thousand three hundred and six, and one hundred and fourteen.
3. From four hundred and three take one hundred and seventy-seven.
4. Take 37 from 265.
5. Multiply 104050607 by 4, and write out Four-times Table.

S

1. How many in all do these numbers make—9876, 809, 75, 506, and 8000?
2. Add up three thousand seven hundred and twelve, eight thousand seven hundred and six, six thousand one hundred and eighty, eighty-four, six hundred and three.
3. Take 590 from 820.
4. From three hundred and five take seventy-three.
5. Multiply 106070809 by 3, and write out Three-times Table

T

1. Find the sum of 7865, 320, 9006, 6, and 2107.
2. How many do these numbers make in all: Nine thousand eight hundred and sixty-four, eight, seventy-six, forty-nine, and nine thousand three hundred and twenty-six?
3. Subtract 77 from 311.
4. From six hundred and fourteen take three hundred and seventy-eight.
5. Multiply 12340506 by two, and write out Twice-times Table.

U

1. 4532 + 7869 + 6001 + 873 + 67.
2. Add together three thousand and eight, nine thousand and fourteen, six thousand six hundred and seven, seven hundred and twenty-eight, and four.
3. 317 – 79.
4. Take five hundred and sixty-five from eight hundred and five.
5. Multiply 106070809 by 6, and write out Six-times Table.

V.

1. 4532 + 7869 + 6001 + 873 + 67
2. Three thousand and eight + nine thousand and fourteen + six thousand and six hundred and seven, four, seven hundred and twenty-eight.
3. Take 79 from three hundred and seventeen.
4. From eight hundred and five subtract 565.
5. Multiply 1070809 by 5, and write out Six-times Table.

W.

1. Add 9706, 8043, 986, 37, and 608.
2. Find the sum of nine hundred, seven hundred and sixty-three, eighty-six, eighty-five, and two.
3. From seven hundred and three take six hundred and sixty-seven.
4. What number will remain after taking 468 from five hundred and seven?
5. Multiply 1060708 by 4, and write out Five-times Table.

X.

1. Find the sum of 876 + 49 + 50, 807, and 72.
2. Add seventy-three, eight hundred and eighty-seven, seven, five, and nine hundred.
3. 621–309.
4. Subtract four hundred and seventeen from seven hundred and thirty-two.
5. Multiply 10506070809 by 4, and write out Five-times Table.

Y

1. Add 908, 72, 3, 903, and 4.
2. Find the sum of eight thousand nine hundred and eighty-seven, seven thousand eight hundred and six, four hundred and thirty, eight hundred and eight, and seventy-seven.
3. Take one hundred and eighty-two from five hundred.
4. From nine hundred and thirty take six hundred and nine.
5. Multiply 11516171819 by 3 and write out Four-times Table.

Z.

1. Add 7973, 9864, 107, 8, and 174.
2. How many do these numbers make in all: Eight thousand five hundred and six, eight thousand seven hundred and sixty-five, ninety-eight, seven, and seven hundred and sixty-eight?
3. From 813 take 489.
4. Take three hundred and eighty-eight from seven hundred and fifteen.
5. Multiply 11617181920 by 2, and write out Three-times Table.

FINAL TEST.

1. 7806 + 9817 + 43 + 506 + 26.
2. Find the sum of three thousand and seventy-six, eight thousand five hundred and thirty, six thousand three hundred and six, ninety-five, and two hundred and nine.
3. From five hundred and three take one hundred and sixty-four.
4. Take 279 from 621.
5. Multiply 10506070809 by 5, and write out Six-times Table.

THE

"TRY" ARITHMETIC.

PART II.

SUBTRACTION.—Ex. I.

[FIRST QUARTER.

A.

(1)	(2)
42083	61084
9656	17848

(3)	(4)
83285	71076
29240	6828

B.

(1)	(2)
73154	73085
27090	19040

(3)	(4)
82736	80087
20912	4424

C.

(1)	(2)
183285	71056
129240	8020

(3)	(4)
93777	90178
18821	4514

D.

(1)	(2)
8717826	94677
2596002	19721

(3)	(4)
85768	178099
912	79909

E.

(1)	(2)
101047	201748
28212	118508

(3)	(4)
9911139	370810
637494	262720

F.

(1)	(2)
310668	101099
225812	2909

(3)	(4)
213610	410611
107540	293934

G.

(1)	(2)
180129	202410
88302	98360

(3)	(4)
210211	312412
97978	187552

H.

(1)	(2)
613410	860411
509360	745956

(3)	(4)
300212	41213
177776	28057

I.

(1)	(2)
308611	164212
191934	41776

(3)	(4)
81113	43814
67970	29702

J.

(1)	(2)
721422	32463
721176	642

(3)	(4)
72124	103125
27272	47060

K.

(1)	(2)
82153	6101034
47605	1979414

(3)	(4)
112175	262126
53585	194848

L.

(1)	(2)
6101444	8101035
1939420	2949010

(3)	(4)
8917826	180067
2796002	105818

M.

(1)	(2)
45823	241074
8911	198242

(3)	(4)
412365	101246
359330	38816

N.

(1)	(2)
101032	41093
100764	8363

(3)	(4)
210174	183285
163302	129240

O.

(1)	(2)
9125436	9110027
2943006	1967899

(3)	(4)
106028	710879
24404	614507

P.

(1)	(2)
993777	9112238
918821	868998

(3)	(4)
203269	670410
107806	566360

Q.

(1)	(2)
262126	107827
194848	36406

(3)	(4)
9010128	120079
847696	23707

R.

(1)	(2)
808195	151126
213095	83848

(3)	(4)
994877	131068
919921	46212

S.

(1)	(2)
9800038	18101029
1556798	8918293

(3)	(4)
24763110	126411
14459060	11956

T.

(1)	(2)
3011352	4210093
910138	937060

(3)	(4)
6031254	84312155
1828826	78554070

U.

(1)	(2)
6704123	7013144
3340181	2447080
(3)	(4)
6024125	8143126
417555	1415242

V.

(1)	(2)
240213	430214
107574	287372
(3)	(4)
408215	317216
255170	153968

W

(1)	(2)
543316	608217
378452	434766
(3)	(4)
640218	658219
456564	464362

X.

(1)	(2)
702315	304516
547755	136420
(3)	(4)
964317	873318
789149	687846

Y.

(1)	(2)
9361029	470610
178293	364540
(3)	(4)
300511	630712
184945	503428

Z.

(1)	(2)
8471086	8263047
1985626	979505
(3)	(4)
9212078	10080249
645606	715695

Test.

(1)	(2)
603712	624313
475216	489048
(3)	(4)
702414	720415
556744	564340

SUBTRACTION.—Ex. II.

A.

1. From one hundred thousand eight hundred take six thousand two hundred and forty-six.

2. Find the difference between 63001710 and 52831530.

3. Take three hundred and seven thousand nine hundred and fifty-six from four hundred and twenty-two thousand four hundred and eleven.

4. Subtract five hundred and seventy-five thousand three hundred and twenty-eight from seven hundred and two thousand six hundred and twelve.

B.

1. From nine hundred and one thousand and thirty-four take eight hundred and fifty-nine thousand eight hundred and eighteen.

2. Find the difference between forty-seven thousand eight hundred and forty-five and one hundred and two thousand three hundred and ninety-five.

3. 640201036 – 21958000.

4. From one hundred and sixty thousand and twenty-seven take eighty-eight thousand six hundred and six.

C.

1. Subtract seventeen thousand seven hundred and eighty-six from forty thousand two hundred and twelve.

2. From fifty-two thousand one hundred and three take nineteen thousand and seventy.

3. Find the difference between nine thousand and sixty and fifty-three thousand one hundred and four.

4. By how much is fourteen thousand five hundred and seventy-five less than seventy-two thousand one hundred and fifty-five?

D.

1. From seven hundred thousand three hundred and twelve take five hundred and seventy-six thousand six hundred and sixty-four.

2. Take five hundred and seventy-two thousand seven hundred and twenty-two from seven hundred and ten thousand six hundred and thirteen.

3. Find the difference between two hundred and ten thousand two hundred and fourteen and sixty-seven thousand three hundred and seventy-two.

4. Subtract eighty-five thousand nine hundred and twenty-five from two hundred and forty-three thousand five hundred and fifteen.

E.

1. Find the difference between 412712043 and 100560222.
2. From fifty-one thousand and twenty take eight thousand one hundred and eighty-eight.
3. Subtract five hundred and fifty-one thousand seven hundred and twelve from six hundred and three thousand two hundred and thirty-two.
4. From eighty-two thousand and twelve take nineteen thousand five hundred and eighty-two.

F.

1. Take nineteen thousand three hundred and fifty-two from forty-three thousand one hundred and ninety-two.
2. Find the difference between sixty-three thousand one hundred and forty-three and twenty-eight thousand eight hundred and ninety-eight.
3. From seventy thousand one hundred and thirty-four take twenty-four thousand eight hundred and seventy-eight.
4. Subtract twenty-three thousand five hundred and sixty-five from eighty thousand one hundred and thirty-five.

G.

1. From three hundred and two thousand three hundred and two take two hundred and thirty-nine thousand two hundred and sixty-six.
2. Find the difference between 54235626 and 62014117.
3. Take six thousand one hundred eighty-two from ninety thousand two hundred and thirty.
4. By how much is one hundred and thirty thousand one hundred and twenty-seven greater than thirty-six thousand four hundred and eighty-two?

FINAL TEST.

1. From six hundred and twenty-three thousand take four hundred and eighty-nine thousand and forty-eight.
2. Subtract five hundred and fifty-six thousand seven hundred and forty-four from seven hundred and two thousand four hundred and fourteen.

Find the difference between 720415 and five hundred and sixty-four thousand three hundred and forty.

4. From 781070012345678900178654321010246781521 6 take 764745147536067687364238303391025959097 6.

MULTIPLICATION.—Ex. I.

A.
1101112 × 2, 3, 4, 5, 6, 7

B.
1080910 × 2, 3, 4, 5, 6, 7

C.
1091011 × 2, 3, 4, 5, 6, 7

D.
1070809 × 2, 3, 4, 5, 6, 7

E.
1060708 × 2, 3, 4, 5, 6, 7

F.
1050607 × 2, 3 4, 5, 6, 7

G.
1131415 × 2, 3, 4, 5, 6, 4

H.
104050607 × 3, 4, 5, 6, 7, 8

I.
111121314 × 2, 3, 4, 5, 6, 7

J.
1121314 × 2, 3, 4, 5, 6, 7

K.
106070809 × 4, 5, 6, 7, 8, 9

L.
108091011 × 4, 5, 6, 7, 8, 9

M.
1017018 × 6, 7, 8, 9, 10, 11

N.
1019020 × 6, 7, 8, 9, 10, 11

O.
1015016 × 7, 8, 9, 10, 11, 12

P.
1018019 × 6, 7, 8, 9, 10, 11

Q.
1030405 × 5, 6, 7, 8, 9, 10

R.
1016017 × 7, 8, 9, 10, 11, 12

S.
105060708 × 2, 3, 4, 5, 6, 7

T.
1013014 × 8, 9, 10, 11, 12, 13

U.
102030405 × 5, 6, 7, 8, 9, 10

V.
106070809 × 2, 3, 4, 5, 6, 7

W.
111121314 × 2, 3, 4, 5, 6, 7

X.
107080910 × 4, 5, 6, 7, 8, 9

Y.
1040506 × 5, 6, 7, 8, 9, 10

Z.
109101112 × 3, 4, 5, 6, 7, 8

No. I.
1017018019 × 7, 8, 9, 10, 11, 12

MULTIPLICATION.—Ex. II.

A.	B.	C.	D.
1. 4554 × 2	1. 1304 × 3	1. 396 × 3	1. 25760 × 6
2. 12880 × 8	2. 3704 × 12	2. 1518 × 8	2. 20406 × 8
3. 19261 × 6	3. 5455 × 10	3. 273 × 5	3. 884 × 2
4. 15456 × 8	4. 20406 × 3	4. 364 × 4	4. 3018 × 6

E.	F.	G.	H.
1. 1405 × 2	1. 1421 × 5	1. 1348 × 9	1. 20406 × 3
2. 4470 × 8	2. 16648 × 5	2. 195 × 7	2. 147 × 5
3. 3805 × 12	3. 16365 × 6	3. 12257 × 12	3. 9608 × 9
4. 9765 × 6	4. 2525 × 4	4. 265 × 6	4. 459 × 2

I.	J.	K.	L.
1. 5455 × 8	1. 18032 × 8	1. 36064 × 2	1. 29447 × 4
2. 14395 × 4	2. 26265 × 6	2. 676 × 12	2. 15759 × 8
3. 5657 × 12	3. 208 × 8	3. 249777 × 4	3. 1311713 × 10
4. 1421 × 5	4. 442 × 4	4. 35020 × 3	4. 371 × 4

M.	N.	O.	P.
1. 273 × 5	1. 20406 × 8	1. 2604 × 9	1. 3906 × 9
2. 12257 × 12	2. 442 × 4	2. 6152 × 6	2. 5888 × 7
3. 255 × 6	3. 20406 × 9	3. 4804 × 9	3. 11415 × 5
4. 23552 × 7	4. 399 × 5	4. 11213 × 5	4. 5354 × 12

Q.	R.	S.	T.
1. 16062 × 8	1. 14567 × 5	1. 5354 × 4	1. 5657 × 12
2. 19136 × 7	2. 20608 × 4	2. 6546 × 5	2. 36771 × 2
3. 364 × 4	3. 15456 × 6	3. 7206 × 6	3. 14008 × 6
4. 19320 × 8	4. 2020 × 5	4. 5455 × 10	4. 24093 × 4

U.	V.	W.	X.
1. 16648 × 10	1. 265177 × 8	1. 5758 × 12	1. 13385 × 8
2. 25024 × 7	2. 520253 × 6	2. 39599 × 2	2. 119911 × 10
3. 15456 × 12	3. 3603 × 12	3. 14816 × 6	3. 16062 × 8
4. 24472 × 8	4. 8370 × 7	4. 24093 × 4	4. 19136 × 7

Y.	Z.	(1.)	(2.)
1. 5657 × 6	1. 791014 × 9	1. 1011012 × 11	1. 3603 × 12
2. 5657 × 8	2. 676010 × 12	2. 144012 × 9	2. 8370 × 7
3. 12880 × 4	3. 1018019 × 9	3. 173888 × 8	3. 5758 × 12
4. 5758 × 12	4. 1268770 × 8	4. 214016 × 7	4. 39599 × 2

MULTIPLICATION.—Ex. III.

A.	B.	C.
1. 736 × 98	1. 3759 × 19	1. 1432 × 57
2. 1472 × 56	2. 2944 × 28	2. 17510118 × 54
3. 40320198 × 23	3. 13440066 × 69	3. 23346824 × 45
4. 2944 × 35	4. 1074 × 95	4. 1472 × 77

D.	E.	F.
1. 3222 × 19	1. 127538 × 40	1. 8755059 × 48
2. 127538 × 56	2. 17510118 × 36	2. 11673412 × 45
3. 8960044 × 92	3. 20406081 × 35	3. 127538 × 48
4. 127538 × 72	4. 13604054 × 60	4. 1472 × 49

G.	H.	I.
1. 2944 × 35	1. 1472 × 98	1. 2918353 × 72
2. 5907 × 19	2. 33600165 × 46	2. 5836706 × 54
3. 2944 × 42	3. 71680352 × 23	3. 11673412 × 36
4. 1472 × 91	4. 2576 × 68	4. 35020236 × 15

J.	K.	L.
1. 23346824 × 27	1. 11673412 × 90	1. 34010135 × 21
2. 11673412 × 63	2. 17510118 × 66	2. 27208108 × 30
3. 8755059 × 96	3. 35020236 × 36	3. 20160099 × 46
4. 17510118 × 54	4. 255076 × 52	4. 11200055 × 92

M.	N.	O.
1. 17510118 × 18	1. 31360154 × 23	1. 24640121 × 46
2. 8960044 × 46	2. 17920088 × 46	2. 17920088 × 69
3. 22400110 × 23	3. 35020236 × 27	3. 58240286 × 23
4. 6720033 × 92	4. 19632190 × 53	4. 15680077 × 92

P.	Q.	R.
1. 29120143 × 46	1. 1167341201 × 18	1. 8960044 × 69
2. 62720308 × 23	2. 8755059 × 36	2. 1167341201 × 63
3. 22400110 × 69	3. 2334682402 × 18	3. 4669364804 × 18
4. 17920088 × 92	4. 3502023603 × 15	4. 40320198 × 23

S.	T.	U.
1. 3421639 × 62	1. 28285379 × 24	1. 11673412 × 27
2. 11673412 × 27	2. 8755059 × 84	2. 2334682402 × 18
3. 32637172 × 13	3. 17510118 × 48	3. 8225837 × 70
4. 17108195 × 31	4. 11673412 × 81	4. 2334682402 × 27

V.	W.	X.
1. 63769 × 80	1. 8823756 × 98	1. 3222 × 19
2. 20529834 × 31	2. 15441573 × 63	2. 15441573 × 49
3. 13637639 × 56	3. 11673412 × 90	3. 2944 × 28
4. 17647512 × 49	4. 52530354 × 22	4. 17510118 × 54

Y.	Z.	Test (1)
1. 1167341201 × 45	1. 10294382 × 84	1. 10294382 × 63
2. 63769 × 96	2. 15441573 × 63	2. 15441573 × 49
3. 1486437244 × 49	3. 44800220 × 23	3. 15441573 × 56
4. 2972874488 × 28	4. 11673412 × 99	4. 10264917 × 93

	Test (2)	
	1. 8755059 × 84	
	2. 17647512 × 49	
	3. 15441573 × 63	
	4. 19632190 × 53	

MULTIPLICATION.—Ex. IV.

A.

1. Multiply three hundred and sixty-eight by one hundred and ninety-six.

2. Multiply seven hundred and thirty-six by one hundred and twelve.

3. Find the product of one hundred and seventy-nine and five hundred and thirteen.

4. Multiply three hundred and fifty-eight by two hundred and eighty-five.

B.

1. Multiply one million three hundred and sixteen thousand and fifteen by four hundred and three.

2. Multiply five hundred and twenty-six thousand four hundred and six by one thousand two hundred and nine.

3. Find the product of three hundred and ninety-nine and one hundred and seventy-nine.

4. Multiply three hundred and fifty-eight by two hundred and twenty-eight.

C.

1. Multiply two hundred and sixty-three thousand two hundred and three by eight hundred and six.

2. Multiply seventy-nine thousand five hundred and seventy-three by three thousand nine hundred and ninety-nine.

3. 746,089 × 612.

4. Multiply three hundred and ninety-seven thousand eight hundred and sixty-five by one thousand three hundred and thirty-three.

D.

1. Multiply one million five hundred and seventy-nine thousand two hundred and eighteen by four hundred and three.

2. Find the product of two hundred and sixty-three thousand two hundred and three and two thousand eight hundred and twenty-one.

3. Multiply 3421639 by two hundred and forty-eight.

4. How many will 789609 make added together one thousand two hundred and nine times?

E.

1. Multiply fifty-one thousand nine hundred and eighty-seven by six thousand one hundred and twenty-one.

2. Find the product of seventy-nine thousand five hundred and seventy-three and 5332.

3. Multiply two hundred and sixty-three thousand two hundred and three by two thousand and fifteen.

4. How many will one hundred and seventy-nine make added together three hundred and forty-two times?

F.

1. Multiply five hundred and twenty-six thousand four hundred and six by eight hundred and six.

2. 285 × 179.

3. 263203 × 2418.

4. How many will 79573 make if added together nine thousand three hundred and thirty-one times?

G.

1. Multiply seven hundred and thirty-two thousand three hundred and eighty-seven by four hundred and eighty.
2. Find the sum of 1464774 added together three hundred and twenty times.
3. Multiply seven hundred and thirty-five thousand three hundred and thirteen by seven hundred and thirty-five.
4. Multiply two million two hundred and five thousand nine hundred and thirty-nine by two hundred and ninety-four.

H.

1. Multiply sixty-three thousand seven hundred and sixty-nine by one hundred and twenty-eight.
2. Find the product of one hundred and fifty-five thousand nine hundred and sixty-one and six thousand one hundred and twenty-one.
3. How many will 2918353 make if added together three hundred and sixty times.
4. Multiply five million eight hundred and thirty-six thousand seven hundred and six by one hundred and ninety-eight.

I.

1. Multiply 2918353 by four hundred and thirty-two.
2. Multiply one hundred and twenty-seven thousand five hundred and thirty-eight by one hundred and four.
3. Find the product of two hundred and twenty-four and sixty-three thousand seven hundred and sixty-nine.
4. Multiply 4480022 by three hundred and forty-five.

J.

1. Multiply 735313 by one thousand three hundred and twenty-three.
2. Multiply 2240011 by four hundred and sixty.
3. Find the product of sixty-three thousand seven hundred and sixty-nine and one hundred and seventy-six.
4. Multiply 4480022 by two hundred and seventy-six.

K.

1. Multiply 371609311 by one hundred and ninety-six.
2. Multiply two million two hundred and forty thousand and eleven by three hundred and sixty-eight.
3. Find the product of 743218622 and one hundred and twenty-six.
4. Multiply four million four hundred and eighty thousand and twenty-two by two hundred and thirty.

L.

1. Multiply two million nine hundred and eighteen thousand three hundred and fifty-three by 396.

2. How many will sixty-three thousand seven hundred and sixty-nine make if added together one hundred and ninety-two times?

3. Multiply two million two hundred and forty thousand and eleven by five hundred and ninety-eight.

4. Find the product of four million four hundred and eighty thousand and twenty-two by 322.

M.

1. Multiply two million thirty-eight thousand seven hundred and fifty-three by two hundred and twenty.

2. Multiply seven hundred and forty-six thousand and eighty-nine by seven hundred and sixty-five.

3. Find the product of five hundred and twenty-six thousand and four hundred and six and one thousand two hundred and nine.

4. Multiply forty-two thousand eight hundred and forty-seven by seventeen thousand three hundred and twenty-nine.

N.

1. Multiply seventy-nine thousand five hundred and seventy three by nine thousand three hundred and thirty-one.

2. Multiply seven hundred and thirty-five thousand three hundred and thirteen by one thousand one hundred and seventy-six.

3. Find the product of two hundred and thirty-eight thousand seven hundred and nineteen and three thousand nine hundred and ninety-nine.

4. How many will eight million nine hundred and sixty thousand and forty-four make if added together one hundred and fifteen times?

O.

1. Multiply two million thirty-eight thousand seven hundred and fifty-three by one hundred and sixty-five.

2. Multiply seven hundred and forty-six thousand and eighty-nine by six hundred and twelve.

3. How many will 2238267 make if added together two hundred and fifty-five times?

4. Find the product of thirty-six thousand seven hundred and twenty-six by seventeen thousand three hundred and twenty-nine.

P.

1. Multiply twelve thousand two hundred and forty-two by fifty-one thousand nine hundred and eighty-seven.
2. Multiply two million two hundred and forty thousand and eleven by three hundred and twenty-two.
3. Multiply two hundred and sixty-three thousand two hundred and three by three thousand two hundred and twenty-four.
4. Find the product of four hundred and forty-one and 2205939.

Q.

1. Multiply fifty-five thousand and eighty-nine by seventeen thousand three hundred and twenty-nine.
2. Multiply 2918353 by three hundred and sixty.
3. Multiply sixty-three thousand seven hundred and sixty-nine by one hundred and seventy-six.
4. Multiply three hundred and seventy-one million six hundred and nine thousand and three hundred and eleven by three hundred and thirty-six.

R.

1. Multiply one million four hundred and seventy thousand six hundred and twenty-six by five hundred and eighty-eight.
2. How many will seven hundred and thirty-five thousand three hundred and thirteen make if added together one thousand three hundred and twenty-three times?
3. Find the product of two hundred and eighty and three hundred and sixty-eight.
4. Multiply seven hundred and thirty-six by one hundred and fifty-four.

S

1. Multiply seven hundred and forty-six thousand and eighty-nine by three hundred and six.
2. How many will fifty-one thousand nine hundred and eighty-seven make if added together six thousand one hundred and twenty-one times?
3. Find the product of twenty-four thousand four hundred and eighty-four and seventeen thousand three hundred and twenty-nine.
4. Multiply eighty-six thousand six hundred and forty-five by six thousand one hundred and twenty-one.

SHORT DIVISION.—Ex. I.

A.	B.	C.
1. 1072÷4	1. 7091520÷2	1. 130920÷3
2. 7824÷2	2. 12364860÷3	2. 20810120÷4
3. 218200÷5	3. 20608100÷4	3. 31215180÷5
4. 309120÷6	4. 30912150÷5	4. 43701252÷6
5. 428526÷7	5. 43277010÷6	5. 58268336÷7
6. 571368÷8	6. 57702680÷7	6. 74916432÷8

D.	E.	F.
1. 210120÷4	1. 25456992÷4	1. 29982652÷4
2. 315180÷5	2. 37124780÷5	2. 42832360÷5
3. 441252÷6	3. 50913984÷6	3. 57823686÷6
4. 588336÷7	4. 66824604÷7	4. 74956630÷7
5. 756432÷8	5. 84856640÷8	5. 94231192÷8
6. 945540÷9	6. 105010092÷9	6. 114556464÷9

G.	H.	I.
1. 17294560÷2	1. 29457297÷3	1. 20810120÷2
2. 29184570÷3	2. 41216200÷4	2. 34336698÷3
3. 40812160÷4	3. 566720÷5	3. 49944288÷4
4. 56 16720÷5	4. 741888÷6	4. 67632890÷5
5. 73461888÷6	5. 937664÷7	5. 86554020÷6
6. 928473÷7	6. 1142736÷8	6. 107131920÷7

J.	K.	L.
1. 462264÷4	1. 636420÷5	1. 827346÷6
2. 630360÷5	2. 819468÷6	2. 1039486÷7
3. 811590÷6	3. 1029588÷7	3. 1260720÷8
4. 1019690÷7	4. 1248600÷8	4. 1498320÷9
5. 1236480÷8	5. 1483776÷9	5. 1751680÷10
6. 1469232÷9	6. 1734510÷10	6. 2020194÷11

M.	N.	O.
1. 99989792÷7	1. 6909702÷3	1. 12728496÷4
2. 124860720÷8	2. 13819404÷4	2. 25699416÷6
3. 1512864÷9	3. 21214160÷5	3. 37478315÷7
4. 1768850÷10	4. 37124780÷7	4. 52368528÷8
5. 2040192÷11	5. 58369140÷9	5. 76370770÷10
6. 2326284÷12	7. 83230070÷11	6. 103767360÷12

P.

1. 8647280 ÷ 2
2. 27022750 ÷ 5
3. 400032 ÷ 6
4. 622272 ÷ 8
5. 785520 ÷ 9
6. 1050093 ÷ 11

Q.

1. 165165 ÷ 3
2. 269112 ÷ 4
3. 470946 ÷ 6
4. 616616 ÷ 7
5. 770976 ÷ 8
6. 1248600 ÷ 12

R.

1. 271536 ÷ 4
2. 395990 ÷ 5
3. 533376 ÷ 6
4. 680967 ÷ 7
5. 840480 ÷ 8
6. 1030095 ÷ 9

S.

1. 1596210 ÷ 2
2. 3584416 ÷ 4
3. 589140 ÷ 6
4. 848560 ÷ 8
5. 1177880 ÷ 10
6. 1512864 ÷ 12

T.

1. 24312336 ÷ 3
2. 4995540 ÷ 5
3. 756630 ÷ 7
4. 1070091 ÷ 9
5. 1284960 ÷ 10
6. 1487915 ÷ 11

U.

1. 65460 ÷ 2
2. 224260 ÷ 5
3. 436460 ÷ 8
4. 605502 ÷ 9
5. 863401 ÷ 11
6. 998880 ÷ 12

V.

1. 198198 ÷ 2
2. 963720 ÷ 9
3. 1400124 ÷ 12
4. 1018272 ÷ 8
5. 937664 ÷ 7
6. 865536 ÷ 6

W.

1. 26184264 ÷ 12
2. 33639420 ÷ 10
3. 40730940 ÷ 9
4. 40812160 ÷ 8
5. 46670946 ÷ 7
6. 80118962 ÷ 11

X.

1. 41094576 ÷ 9
2. 42832360 ÷ 8
3. 47095188 ÷ 7
4. 74249560 ÷ 10
5. 51398832 ÷ 6
6. 116738280 ÷ 12

Y.

1. 243957 ÷ 7
2. 336192 ÷ 8
3. 518220 ÷ 9
4. 741888 ÷ 12
5. 871178 ÷ 11
6. 509136 ÷ 6

Z.

1. 283656 ÷ 12
2. 390027 ÷ 11
3. 41216200 ÷ 10
4. 531855 ÷ 9
5. 499440 ÷ 8
6. 549437 ÷ 7

Test (1).

1. 826443 ÷ 9
2. 8720800 ÷ 8
3. 785631 ÷ 7
4. 770976 ÷ 6
5. 663195 ÷ 5
6. 588336 ÷ 4

Test (2).

1. 29184570 ÷ 3
2. 40812160 ÷ 4
3. 56116720 ÷ 5
4. 73461888 ÷ 6
5. 928473 ÷ 7
6. 1142736 ÷ 8

DIVISION (By Factors)

	A.	B.	C.
1.	437010 ÷ 14	2040192 ÷ 22	4616192 ÷ 32
2.	624300 ÷ 15	2521440 ÷ 24	5050485 ÷ 33
3.	840480 ÷ 16	2805825 ÷ 25	5713680 ÷ 35
4.	1123740 ÷ 18	3338496 ÷ 27	6244236 ÷ 36
5.	1442560 ÷ 20	3713892 ÷ 28	7346160 ÷ 40
6.	1748040 ÷ 21	4285260 ÷ 30	8141994 ÷ 42

	D.	E.	F.
1.	995632 ÷ 44	4622640 ÷ 55	10386432 ÷ 72
2.	1431945 ÷ 45	5193216 ÷ 56	11901120 ÷ 77
3.	2036544 ÷ 48	6182400 ÷ 60	13189120 ÷ 80
4.	2648205 ÷ 49	7396224 ÷ 64	14188608 ÷ 81
5.	3151800 ÷ 50	8320752 ÷ 66	15579648 ÷ 84
6.	3933090 ÷ 54	9376640 ÷ 70	17228288 ÷ 88

	G.	H.	I.
1.	4073040 ÷ 90	3891240 ÷ 120	1872900 ÷ 20
2.	5333760 ÷ 96	5231556 ÷ 121	2355760 ÷ 22
3.	6780510 ÷ 99	7400580 ÷ 132	2944700 ÷ 25
4.	7919800 ÷ 100	9688032 ÷ 144	3597888 ÷ 28
5.	9513504 ÷ 108	1098874 ÷ 14	4328480 ÷ 32
6.	10400940 ÷ 110	1422336 ÷ 16	5098450 ÷ 35

	J.	K.	L.
1.	5883360 ÷ 40	437010 ÷ 14	10800900 ÷ 110
2.	6867300 ÷ 44	3200256 ÷ 72	13078890 ÷ 121
3.	7991040 ÷ 48	4283200 ÷ 80	16641504 ÷ 144
4.	8844250 ÷ 50	5396832 ÷ 84	1872900 ÷ 15
5.	10300950 ÷ 55	7127820 ÷ 90	2482038 ÷ 18
6.	11861700 ÷ 60	8560728 ÷ 99	3118458 ÷ 21

	M.	N.	O.
1.	3428208 ÷ 24	1072800 ÷ 45	6596128 ÷ 77
2.	4254930 ÷ 27	1737393 ÷ 49	7491600 ÷ 80
3.	5042880 ÷ 30	2552904 ÷ 54	9079560 ÷ 84
4.	5780544 ÷ 33	3309320 ÷ 56	9974272 ÷ 88
5.	6611544 ÷ 36	4383360 ÷ 64	11564640 ÷ 90
6.	8222592 ÷ 42	5246920 ÷ 70	12733344 ÷ 96

P.

1 2152896 ÷ 64
2. 2915380 ÷ 65
3. 3571050 ÷ 70
4. 4538592 ÷ 72
5. 607148703 ÷ 81
6. 7467264 ÷ 84

Q.

1. 547920 ÷ 24
2. 11070 ÷ 30
3. 1413456 ÷ 33
4. 2206260 ÷ 42
5. 3502116 ÷ 54
6. 4797184 ÷ 64

R.

1. 2753520 ÷ 77
2. 1037664 ÷ 24
3. 194b620 ÷ 36
4. 2746920 ÷ 44
5. 4276720 ÷ 56
6. 5188320 ÷ 60

S.

1. 5142312 ÷ 72
2. 6938784 ÷ 81
3. 8815392 ÷ 96
4. 11019240 ÷ 108
5. 13601280 ÷ 120
6. 17805312 ÷ 144

T.

1. 1685610 ÷ 18
2. 2081000 ÷ 20
3. 4160376 ÷ 36
4. 5547168 ÷ 44
5. 7501312 ÷ 56
6. 9141888 ÷ 64

U.

1. 365280 ÷ 16
2. 840975 ÷ 25
3. 1435264 ÷ 32
4. 2363850 ÷ 45
5. 4080384 ÷ 66
6. 5295024 ÷ 72

V.

1. 1383552 ÷ 16
2. 2040192 ÷ 22
3. 3606400 ÷ 35
4. 5493840 ÷ 48
5. 6742440 ÷ 54
6. 8754174 ÷ 66

W.

1. 1232820 ÷ 36
2. 1900752 ÷ 42
3. 2863890 ÷ 54
4. 3933090 ÷ 63
5. 5098450 ÷ 70
6. 6676992 ÷ 81

X.

1. 2960232 ÷ 44
2. 4435088 ÷ 56
3. 5236800 ÷ 60
4. 7630623 ÷ 77
5. 8740200 ÷ 84
6. 11200992 ÷ 96

Y.

1. 354570 ÷ 15
2. 967344 ÷ 28
3. 1486976 ÷ 32
4. 2454750 ÷ 45
5. 3698460 ÷ 54
6. 4709460 ÷ 60

Z.

1. 6167808 ÷ 72
2. 8247960 ÷ 84
3. 9988800 ÷ 96
4. 12721104 ÷ 108
5. 15128640 ÷ 120
6. 8521695 ÷ 63

Test 1.

1. 8999046 ÷ 63
2. 12017775 ÷ 77
3. 13059840 ÷ 80
4. 17341632 ÷ 99
5. 20201940 ÷ 110
6. 28191744 ÷ 144

Test 2.

1. 2138346 ÷ 63
2. 2247480 ÷ 54
3. 3818520 ÷ 72
4. 5702256 ÷ 84
5. 1979950 ÷ 25
6. 12801024 ÷ 144

EXAMINATIONS. [SECOND QUARTER.

A.

1. 18854376 – 15520737
2. 8225837 × 56
3. 30605 × 17329
4. 561870 ÷ 9
5. 428526 ÷ 6

B.

1. 21338538 – 16893686
2. 16451674 × 35
3. 79573 × 7998
4. 509845 ÷ 7
5. 741888 ÷ 9

C.

1. 369948398 – 310853298
2. 48955758 × 13
3. 121303 × 6121
4. 523680 ÷ 6
5. 693693 ÷ 7

D.

1. 31127222 – 26480350
2. 17108195 × 31
3. 79573 × 7998
4. 633584 ÷ 8
5. 172944 ÷ 2

E.

1. 39426229 – 31930566
2. 27373112 × 31
3. 18363 × 51987
4. 918270 ÷ 9
5. 1360128 ÷ 12

F.

1. 6357073859 – 5492345771
2. 1486437244 × 63
3. 4480022 × 230
4. 457820 ÷ 4
5. 749160 ÷ 6

G.

1. 79218119 – 70035383
2. 4480022 × 230
3. 2918353 × 396
4. 1483776 ÷ 12
5. 795834 ÷ 6

H.

1. 943180245 – 932674175
2. 24640121 × 46
3. 2918353 × 432
4. 937664 ÷ 7
5. 1142736 ÷ 8

I.

1. 8473817120 – 7329260443
2. 2229655866 × 56
3. 2240011 × 598
4. 1285578 ÷ 9
5. 1092525 ÷ 7

J.

1. 54107593 – 41379097
2. 58240286 × 23
3. 4480022 × 322
4. 765225 ÷ 5
5. 1305984 ÷ 8

K.

1. 2973159 – 2835268
2. 255076 × 56
3. 6720033 × 230
4. 489744 ÷ 3
5. 1926848 ÷ 11

L.

1. 1082780385 – 934282273
2. 33600165 × 46
3. 2240011 × 736
4. 520353 ÷ 3
5. 220385664 ÷ 12

M.

1. 1000640872 – 987912376
2. 127538 × 104
3. 63769 × 224
4. 1081920 ÷ 7
5. 164864800 ÷ 10

N.

1. 10514103 – 8271475
2. 8225837 × 42
3. 12242 × 34658
4. 262650 ÷ 5
5. 370944 ÷ 6

O.

1. 10498252 – 7073704
2. 16451674 × 28
3. 79573 × 6665
4. 561870 ÷ 9
5. 509845 ÷ 7

P.

1. 291140030 – 286856794
2. 16451674 × 35
3. 526406 × 1209
4. 21638505 ÷ 3
5. 577024 ÷ 7

Q.

1. 303771673 – 244676573
2. 127538 × 48
3. 79573 × 9331
4. 33619424 ÷ 4
5. 82644624 ÷ 9

R.

1. 29023393 – 22174297
2. 255076 × 28
3. 263203 × 3224
4. 18729108 ÷ 2
5. 824320 ÷ 8

S.

1. 657549305 – 649700107
2. 13686556 × 62
3. 79573 × 11997
4. 648540 ÷ 6
5. 824516 ÷ 7

T.

1. 43746745 – 34937849
2. 1472 × 63
3. 358 × 285
4. 34336698 ÷ 3
5. 1112832 ÷ 9

U.

1. 3639747 – 2640639
2. 2944 × 35
3. 2918353 × 396
4. 252144 ÷ 2
5. 1591668 ÷ 12

V.

1. 5565751 – 5457661
2. 1472 × 77
3. 1963219 × 636
4. 535808 ÷ 4
5. 1298304 ÷ 9

W.

1. 7932366 – 7813467
2. 255076 × 48
3. 127538 × 104
4. 728350 ÷ 5
5. 1260720 ÷ 8

X.

1. 982213776 – 853717668
2. 510152 × 26
3. 2240011 × 644
4. 463680 ÷ 3
5. 181351280 ÷ 11

Y.	Z.
1. 1089892146 – 952001042	1. 10177862 – 10033606
2. 1472 × 98	2. 255076 × 60
3. 11200055 × 138	3. 127538 × 128
4. 652992 ÷ 4	4. 1214157 ÷ 7
5. 122618195 ÷ 7	5. 1498320 ÷ 8

Test.

1. 331727129 – 324878033
2. 26265177 × 28
3. 1963219 × 424
4. 58369140 ÷ 6
5. 91827360 ÷ 9

PROBLEMS. [THIRD QUARTER.

A.

1. John has 368 nuts, Joseph 236, Thomas 987, and William 877; how many had they in all?
2. Alfred has 709 marbles and his brother 340; how many more has Alfred than his brother?
3. If 8960044 had 46 pennies each, how many would they have altogether?
4. Divide 306090 cocoa nuts equally among six ships; how many would each contain?

B.

1. A man sold 428526 plums at seven for a penny; how many pennies did he get?
2. If there are 80076 ships in the Atlantic Ocean on a certain day, and 8655 in the Mediterranean Sea, how many ships less would there be in the Mediterranean Sea than in the Atlantic Ocean?
3. If a woman takes 139 eggs to market on Monday, 276 on Tuesday, 207 on Wednesday, and 194 on Thursday, how many eggs did she take to market in the four days?
4. If 35020236 bricks are required to build a large house, how many bricks would it take to build 27 such houses?

C.

1. Four boys had a bag each containing nuts; the first boy had 989 in his, the second 987, the third 993, and the fourth 943; how many had they altogether?

2. A man in one day gathers 503 apples; he gives 47 to his son, and 40 to his daughter; how many had he left?

3. If a cart wheel is seven feet round, how many feet will it have gone in turning round 8370 times?

4. If a carriage wheel be twelve feet round, how many times will it turn round in going a distance of 741,888 feet?

D.

1. A man bought a farm for £38982 and sold it for £81006, how many pounds did he gain?

2. If a boy can jump four feet at a time, how many feet will he have gone in 12880 jumps?

3. If a pond contains 686730 gallons, how many hours will it be in getting empty if it runs out at the rate of eleven gallons an hour?

4. At a tea party there were three baskets containing oranges; in the first there were two hundred and seven, in the second there were three hundred and six, and in the third two hundred and nineteen; if an orange were given to every child present and four oranges were left, how many children were present?

E.

1. If there are fifty-four houses in one street, how many houses would there be in 5836706 streets of the same kind.

2. A woman sold two thousand and eighty plums, at five a penny, how many pennies did she get.

3. A man bought two boxes of oranges, the first had 232, the second seven less than three hundred; how many had he altogether?

4. In a cistern there are seventy thousand and twelve gallons of water; how many gallons would there remain in if 6976 gallons were run out?

F.

1. How many nines are there in six hundred and sixty-one thousand eight hundred and seventy-eight.

2. Multiply the product of seven and 2944 by four.

3. How many days old was a child on the 7th of July, 1883, who was born on the first of January, 1881 (365 days in one year)?

4. A man dies leaving £200,000 to be divided between his three sons; the eldest gets £100,000, the youngest £98,940; what was the second son's share?

G.

1. If pins are placed nineteen in a row, how many pins would there be in five thousand nine hundred and seven rows.

2. If a boy walks four hundred and one miles in January, four hundred and sixteen in February, and four hundred and nineteen in March, how many miles will he have walked in the three months?

3. A market woman had two thousand two hundred herrings to sell; she sold four hundred on Monday, four hundred and sixty-one on Tuesday; how many had she left?

4. A chest of tea weighs 1142736 ounces; into how many half-pound parcels can it be made (8oz. make ½lb.)?

H.

1. Add the sum of four hundred and ninety-nine and thirty-one to a thousand.

2. 1000000 pins are made in a factory weekly; if 836752 were sold, how many are left?

3. How many sheep, at four pounds each, can be bought for £693804?

4. If a boy can work twelve hard sums right every day, how many hard sums would he work in 15456 days?

I.

1. If there are 30000 small insects in a field, six thousand died, 2088 were destroyed by a swallow, and 900 by a sparrow; how many would remain?

2. Multiply the product of three and 8755059 by a dozen.

3. If a boy buys twelve cherries for a penny, how many pennies would he spend in buying 513984 cherries?

4. A man sold 48 eggs to one person, two hundred and ninety-five to another, one hundred and eight to a third, and had sixty-four left; how many had he at first?

J.

1. If a codfish contains 732387 eggs, how many eggs would there be in four hundred and eighty such fish?

2. How many half dozen cards would there be in two parcels if the first contained 209002 cards, and the other fifty thousand four hundred and fourteen?

3. Write down 13385 four times under each other, and add up.

4. There were 700 oranges in a cask, fifty-two being bad were thrown away, and twelve being very good were eaten, the remainder were sold at a penny each; how many pennies were got by the sale?

K.

1. If I divide three hundred and ninety-two thousand seven hundred and sixty nuts equally among nine boys, how many would each get?

2. A man divides £1000 among a soldier, a sailor, and a volunteer; the soldier gets £200, the volunteer £260, what does the sailor get?

3. In a bag there are 70000 apples, nuts, and plums, seven hundred are apples, five thousand and fifty-two are plums; how many nuts are there?

4. How much money will it take to pay three hundred and ninety-nine persons at the rate of one hundred and seventy-nine pounds each?

L.

1. A man having a thousand plums sells three hundred and ninety-nine, eats fifty, and throws away six bad ones; how many has he left?

2. If you have seven hundred and eighty marbles, and I have 126 less than you, how many have I?

3. Multiply the sum of seventy thousand and seventy and nine thousand five hundred and three by nine thousand three hundred and thirty-one.

4. How many dozen oranges are there in five large baskets, each containing 199776?

M.

1. If I read 159 pages out of a book which contains 813, how many more have I to read.

2. Multiply the difference between 400000000 and 28390689 by one hundred and ninety-six.

3. A boy is five feet high, and the mountain he is climbing four thousand and eighty feet high; how many times higher is the mountain than the boy?

4. A builder used sixty thousand bricks in building a house, twenty-five thousand in stables and coach-house, and seven thousand seven hundred and thirty-six in walls, &c.; how many bricks did he use altogether?

N.

1. Multiply the sum of 210 and 1963009 by three hundred and seventy-one.

2. How long should I be in reading a book of four volumes if each volume had 1854 pages, and I read nine pages daily?

3. If a girl write 205 words on Monday, 263 on Tuesday, 179 on Wednesday, 187 on Thursday, and 111 on Friday, how many words did she write on the five days?

A man had one thousand two hundred and three pounds in the bank and he drew out one hundred pounds to pay his rent and sixty-three pounds to pay for a horse; how much had he left in the bank.

O.

1. There are twelve pence in one shilling. How many shillings are there in 1027968 pence?

2. If a boy gathers one hundred and thirty apples on Monday, 187 on Tuesday, 294 on Wednesday, one hundred and seven on Thursday, 136 on Friday, and 100 on Saturday, how many did he gather during the week?

3. From one hundred score take ten times ninety-five.

4. How many will 63769 make if added together one hundred and seventy-six times?

P.

1. If 23064 persons visited Peel Park Museum, Manchester, in January last year, and 29879 in February, and 21264 in March, and 17620 in April, how many went there during the four months?

2. From three hundred thousand and six take the sum of one hundred and three thousand two hundred and thirty, and ninety thousand seven hundred and six.

3. If the building of a cottage cost £396, how many pounds will it take to build 2918353 such cottages?

4. In a farm in Yorkshire there are five thousand one hundred and eight-four fowls, half of them were hens, one quarter were ducks; how many were there of other kinds?

Q.

1. In a street there are 1217 houses on one side, and 147 on the other; how many less are there on the one side than the other?

2. If there are 5836706 boys going to school in Wales one day in summer, and they all get one hundred and ninety-eight nuts; how many nuts would they have altogether?

3. How many dozen knives are there in 1498320 knives?

4. To the product of eight times sixteen thousand five hundred and seventy-nine add seven.

R.

1. Multiply the product of twenty-three and 24640121 by two.

2. A train in going three thousand eight hundred and eighty-eight miles stopped at every station, three miles apart; how many times did it stop?

3. A gentleman has three plantations, the first contains 47634 trees, the second 39208 trees, and the third 47,110; how many trees were there altogether?

4. From two hundred and fifty-five dozen take eighty score and eighteen.

S.

1. A boy had two thousand five hundred and sixty-eight nuts, he eat half of them and gave away what he had left; how many did he give away?

2. Two ships laden with oranges arrived at London, the first had 63098 oranges, the second 72167; if the lot were sold at a penny each, how many pennies would they be sold for?

3. A horse cost 2104 shillings, and a cow 648 shillings; how many shillings more did the horse cost than the cow?

4. Multiply the sum of 2200000 and 40011 by six hundred and ninety.

T.

1. If one boy sells 324 "Scarborough Mercurys" during the week, another sells 576 "Malton Gazettes," and another 465 school newspapers; how many papers did they sell altogether?

2. A farmer had two thousand and twenty-three fowls, three were turkeys, one hundred and twenty were geese, four hundred and thirty ducks, and the remainder hens; how many hens had he?

3. Multiply the sum of 4480019 and three by three hundred and forty-five.

4. If oranges are sold at a halfpenny each, how many pennies will it take to pay for three thousand two hundred and sixty-four oranges?

U.

1. Take the sum of 60001 and 1810 from 210309.

2. If 368 boys get twenty-one score of nuts each in one day, how many nuts did they get altogether?

3. If there are six thousand five hundred and twenty-eight soldiers marching through the streets of London before leaving the country, four in a line, how many lines will there be?

4. George the Second was born in 1683; in what year was he sixty-eight years old?

V.

1. How many legs would 25760 dogs and 25760 hens have?

2. Divide 8320 apples equally among five boys; how many do they get each?

3. Gladstone in the House of Commons one night spoke seven hundred and eight words; Disraeli, 364; Bright, 237; Sir Stafford Northcote, 373; and Mundella, sixty-nine; how many words did the five members speak?

4. A man bought a watch and a clock for 2173 pence, he gave 337 pennies for the clock; how many pennies did the watch cost?

W.

1. Divide the half of thirty thousand two hundred and forty by nine.

2. If a shorthand writer writes 36000 words on Monday, 37580 on Tuesday, 30270 on Wednesday, 39240 on Thursday, 33795 on Friday, how many words did he write in the five days?

3. If two boys run a race of 2000 yards, and the first wins by one hundred and forty-six yards, how many yards had the other run when the race was won?

4. How many feet have 24472 dogs and the same number of cats altogether?

X.

1. In roofing three houses, 7869 slates were used for the first, 4503 slates were used for the second, and 8640 slates were used for the third; how many slates were used altogether?

2. From forty dozen apples take eight score and a quarter of a score; how many would be left?

3. Multiply 746089 by the sum of 580 and thirty-two.

4. Forty-eight women buy six shillings' worth of pins, at four thousand two hundred for a shilling, and divide them equally; how many pins will each woman get?

Y.

1. Out of thirty-five score of sheep, three score were sold and four died; how many remained?

2. Multiply 557011 by the difference between two hundred score and 2667.

3. A horse is worth five sheep; how many horses are four thousand four hundred and forty sheep worth?

4. A gardener plants four rows of cabbages, in the first row he puts two hundred and six, in the second row two hundred and thirty-seven, in the third row two hundred and eight, and in the fourth row two hundred and seventy-six; how many cabbages did he plant in the four rows?

Z.

1. Multiply 2918353 by the difference in units between twenty score and forty.

2. Divide the half of 15862 by seven.

3. If a Standard I. book contains 88 pages, a Standard II. 142 pages, a Standard III. 200 pages, a Standard IV. 300 pages, a Standard V. 300 pages, and a Standard VI. 266; how many pages would there be in the six reading books?

4. Take a hundred score of sheep from 3339.

INSPECTORS' TESTS. [LAST QUARTER

TO THE TEACHER.—The Inspectors' tests in this Standard (II), generally consists of a subtraction sum, a multiplication sum, and a short division sum (as in letters A, B, C, D, and E,) dictated. The children may be placed back to back along the room, or numbered 1 and 2 in their desks, or mixed up in the other standards as the Inspector directs.

The following pieces of dictation letters A, B, and C, and similar sums have been given by Inspectors' this year.

(DICTATED BY ASSISTANT INSPECTOR).

A

1. Divide thirty-seven thousand four hundred and ninety-eight by eight.

2. From ninety-four thousand six hundred and eight take thirty-seven thousand five hundred and thirty-three.

3. Multiply one hundred and twenty-seven thousand five hundred and thirty-eight by forty-eight.

Dictation (by teacher).—The boys were in terror; some ran to the door, others made for the tables. One big fellow jumped out of the window. Two or three little girls hid themselves under the desks; but one brave boy seized a piece of wood, and told the girls not to be afraid for he would protect them.

B.

1. Divide eighty-nine thousand one hundred by seven.
2. Multiply two hundred and fifty-five thousand and seventy-six by fifty-two.
3. From two hundred and six thousand seven hundred and three take fifty-eight thousand two hundred and five.

Dictation.—Men go in ships to those parts of the world where whales are found, and kill them with iron spears called harpoons. But it is very dangerous work, for a whale often upsets a boat with a blow of its tail. When the whale is dead, the sailors put its fat called blubber into casks, and bring it home to be made into oil.

C.

1. Divide nineteen thousand four hundred and fifty-seven by nine.
2. From seventy thousand six hundred and twenty take thirty-eight thousand seven hundred and ninety-nine.
3. Multiply eight million nine hundred and sixty thousand and forty-four by forty-six.

Dictation.—Standing on its hind feet it put its paw into the baskets and helped itself to the bread and fruit and other good things in them. It then quietly walked out of school by the way it had walked in. In the meantime, the boy who had jumped out of the window had alarmed the village.

D.

1. From fifty thousand seven hundred and two take eighteen thousand eight hundred and eighty-one.
2. Multiply eight million seven hundred and fifty-five thousand and fifty-nine by forty-eight.
3. Divide four hundred and fifty-nine thousand one hundred and thirty-five by nine.

Dictation.—The cry of grief which fell upon the mother's ears was too much for her, and her heart sank within her. In a moment after the children were all around her, pleading with tearful eyes, and voices choked with sobs for their little pet.

E.

1. Divide two hundred and twenty thousand six hundred and twenty-six by seven.
2. From seventy thousand two hundred and seventeen take twenty-nine thousand and one.
3. Multiply seven hundred and forty-six thousand and eighty-nine by seven hundred and sixty-five.
4. In a bag there are 70000 plums, apples and pears; 700 are pears, 5052 are apples; how many plums are there?

F.

1. Take two thousand seven hundred and fifty-five from sixty-seven thousand and three.
2. Multiply one hundred and twenty-seven thousand five hundred and thirty-eight by fifty-six.
3. Divide four hundred and eight thousand one hundred and twenty by five.
4. In roofing a large house 60000 slates were used on the house itself, there were 25000 used on the stables, and 7736 were used on the coach-house; how many slates were used altogether?

G.

1. Multiply 1167341201 by eighteen.
2. Divide one hundred and ninety-two thousand seven hundred and forty-four by six.
3. From seventy-eight thousand and sixty-two take thirty-six thousand four hundred and forty-two.
4. If I have 1000 oranges and eat 6, throw 50 bad ones away, and sell 399. how many shall I have left?

H.

1. Divide five hundred and seventy-seven thousand and twenty-four by seven.
2. Multiply one hundred and twenty-seven thousand five hundred and thirty eight by seventy-two.
3. Take one hundred and ninety-six thousand and seventy nine from three hundred thousand one hundred and twenty nine.
4. If it takes 2918353 blocks of wood to pave a street, how many blocks would it take to pave 396 streets of the same size?

I.

1. Divide one hundred and ninety-four thousand five hundred and sixty-two by six.
2. Find the difference between one hundred thousand two hundred and six and fifty-five thousand three hundred and fifty-four.
3. Multiply thirty-five million twenty thousand two hundred and thirty-six by fifteen.
4. If I read 159 pages out of a book which contains 813, how many more have I to read?

J.

1. Divide four hundred and eighty-nine thousand seven hundred and forty-four by four.
2. From two hundred and one thousand three hundred and seventy take sixty-six thousand one hundred and five.
3. Multiply sixty-three thousand seven hundred and sixty-nine by two hundred and twenty-four.
4. If one cow gives 368 quarts of milk in six months, how many quarts ought I to get from 420 similar cows in the same time.

K.

1. Divide two hundred and eighty-eight thousand five hundred and twelve by seven.
2. Take twenty thousand two hundred and seventy-seven from seventy-two thousand three hundred and two.
3. Multiply 179×342.
4. Find the product of 557011 and 1333.

L.

1. From one hundred and two thousand and thirty-four take forty-five thousand nine hundred and sixty-nine.
2. Multiply 36726×17329.
3. Divide five hundred and seventy-one thousand three hundred and sixty-eight by eight.
4. If a horse is worth five sheep, how many horses are 4440 sheep worth?

M.

1. Divide two hundred and ninety-four thousand five hundred and seventy by nine.
2. Subtract fifty-five thousand seven hundred and seventy-one from one hundred and one thousand and twenty-seven.

3. Multiply seventy-nine thousand five hundred and seventy-three by six thousand six hundred and sixty-five.

4. Out of thirty-five score of sheep 60 died and four went astray; how many remained.

N.

1. From ninety thousand two hundred and ten take two thousand nine hundred and thirty.

2. Multiply seventeen million five hundred and ten thousand one hundred and eighteen by fifty-four.

3. Divide four hundred and eight thousand one hundred and twenty by four.

4. Divide the half of fifteen thousand eight hundred and sixty-two by seven.

O.

1. Multiply two million nine hundred and eighteen thousand three hundred and fifty-three by three hundred and ninety-six.

2. Take twenty-five thousand seven hundred and ninety-two from one hundred and fifty-three thousand and seventy-six.

3. Divide six hundred and sixty-three thousand one hundred and ninety-five by five.

4. From 255 dozen take 80 score and eighteen.

P.

1. Multiply one thousand four hundred and seventy-two by ninety-eight.

2. Divide ninety-one thousand eight hundred and twenty nine by six.

3. Subtract five hundred and thirty-five thousand three hundred and forty-six from seven hundred thousand two hundred and ten.

4. How many legs have four hundred and forty-two rabbits?

Q.

1. From one hundred thousand nine hundred and three take twenty-six thousand six hundred and fifty-four.

2. Divide five hundred and eighty-two thousand six hundred and eighty by seven.

3. Multiply seventy-nine thousand five hundred and seventy-three by eleven thousand nine hundred and ninety-seven.

4. From one hundred score take ten times ninety-five.

R.

1. Multiply thirty-six thousand seven hundred and twenty-six by seventeen thousand three hundred and twenty-nine.

2. Subtract two hundred and fifteen thousand and eighty-one from two hundred and ninety thousand and thirty-seven.

3. Divide seventy-five thousand six hundred and forty-four by nine.

4. If a girl makes 130 stitches in an apron on Monday, 187 on Tuesday, 294 on Wednesday, 107 on Thursday, and finishes it on Friday with 236 stitch, how many stitches are there in the apron?

S.

1. Divide one hundred and eleven thousand two hundred and eighty-four by nine.

2. From three hundred and twenty thousand and seven take one hundred and eighty-three thousand four hundred and twenty-nine.

3. Multiply four million four hundred and eighty thousand and twenty-two by three hundred and twenty-two.

4. How many feet have three hundred and ninety rats? (390)

T.

1. Divide twenty-three thousand three hundred and thirty-seven by seven.

2. Take one hundred and fifty-four thousand and seven from two hundred thousand and seventy-one.

3. Multiply two million two hundred and thirty-eight thousand two hundred and sixty-seven by two hundred and fifty-five.

4. If Tom has 780 marbles, and Joe 126 less than Tom, how many has Joe got?

THE

"TRY" ARITHMETIC.

PART III.

LONG DIVISION.—**Ex. 1.** [FIRST QUARTER

	A		B		C
1.	3206 ÷ 13	1.	3762 ÷ 14	1.	42162 ÷ 15
2.	11070 ÷ 30	2.	121287 ÷ 31	2.	998898 ÷ 32
3.	384976 ÷ 80	3.	3420948 ÷ 83	3.	3579344 ÷ 86
4.	867175 ÷ 170	4.	9119040 ÷ 177	4.	957173 ÷ 184
5.	1817945 ÷ 297	5.	1879332 ÷ 304	5.	19415766 ÷ 311
6.	3021194 ÷ 423	6.	31015075 ÷ 430	6.	31828895 ÷ 437

	D		E		F
1.	1103130 ÷ 35	1.	1209222 ÷ 38	1.	1317111 ÷ 41
2.	373982 ÷ 89	2.	390272 ÷ 92	2.	406887 ÷ 95
3.	10033265 ÷ 191	3.	1049999 ÷ 198	3.	10975700 ÷ 205
4.	2004360 ÷ 318	4.	2068548 ÷ 325	4.	2132776 + 332
5.	3265425 ÷ 444	5.	3348233 ÷ 451	5.	3432716 ÷ 458
6.	4424236 ÷ 542	6.	4525647 ÷ 549	6.	46281440 ÷ 556

	G		H		I
1.	423660 ÷ 98	1.	4407640 ÷ 101	1.	458020 ÷ 104
2.	11457590 ÷ 212	2.	11946450 ÷ 219	2.	1244135 ÷ 226
3.	2198419 ÷ 339	3.	22649226 ÷ 346	3.	2331924 ÷ 353
4.	3518560 ÷ 465	4.	36046717 ÷ 472	4.	3691660 ÷ 479
5.	4731460 ÷ 563	5.	4836456 ÷ 570	5.	4943054 ÷ 577
6.	6343377 ÷ 684	6.	6426834 ÷ 693	6.	6574082 ÷ 702

	J		K		L
1.	336192 ÷ 16	1.	360654 ÷ 17	1.	1426818 ÷ 44
2.	200248 ÷ 59	2.	212293 ÷ 62	2.	475516 ÷ 107
3.	511292 ÷ 114	3.	547531 ÷ 121	3.	1455290 ÷ 255
4.	12945545 ÷ 233	4.	13972790 ÷ 247	4.	2538716 ÷ 374
5.	2400398 ÷ 360	5.	2468817 ÷ 367	5.	39905005 ÷ 500
6.	3780112 ÷ 486	6.	6153617 ÷ 784	6.	5050128 ÷ 584

	M		N		O
1.	385488 ÷ 18	1.	373982 ÷ 89	1.	414580 ÷ 19
2.	224518 ÷ 65	2.	15624865 ÷ 269	2.	2369868 ÷ 68
3.	5844480 ÷ 128	3.	2680698 ÷ 388	3.	621814 ÷ 135
4.	15086045 ÷ 262	4.	36556213 ÷ 514	4.	16170840 ÷ 276
5.	26094786 ÷ 381	5.	51582480 ÷ 591	5.	27495952 ÷ 395
6.	36022869 ÷ 507	6.	6722968 ÷ 711	6.	37090537 ÷ 521

	P		Q		R
1.	1538310 ÷ 47	1.	44042 ÷ 20	1.	390272 ÷ 92
2.	659740 ÷ 142	2.	249569 ÷ 71	2.	3192946 ÷ 602
3.	16723985 ÷ 283	3.	698365 ÷ 149	3.	25434676 ÷ 416
4.	2453047530 ÷ 402	4.	172579000 ÷ 290	4.	39436488 ÷ 507
5.	37625841 ÷ 528	5.	24982143 ÷ 409	5.	5267192 ÷ 598
6.	53454221 ÷ 657	6.	38162125 ÷ 535	6.	6873492 ÷ 720

	S		T		U
1.	165153 ÷ 50	1.	46666 ÷ 21	1.	624300 ÷ 15
2.	737418 ÷ 156	2.	262337 ÷ 74	2.	3657536 ÷ 703
3.	43640055 ÷ 800	3.	7771840 ÷ 163	3.	33027888 ÷ 478
4.	4979844 ÷ 79	4.	3979300 ÷ 780	4.	71335740 ÷ 970
5.	5713680 ÷ 80	5.	6306048 ÷ 102	5.	54841324 ÷ 612
6.	5377851 ÷ 605	6.	71674190 ÷ 905	6.	7025654 ÷ 729

	V		W		X
1.	49330 ÷ 22	1.	176655 ÷ 53	1.	38848624 ÷ 907
2.	2753520 ÷ 77	2.	1883784 ÷ 42	2.	3464729 ÷ 607
3.	1315117 ÷ 307	3.	5068394 ÷ 904	3.	3561262 ÷ 576
4.	4112654 ÷ 708	4.	18280440 ÷ 290	4.	8756519 ÷ 123
5.	45482280 ÷ 670	5.	21670567 ÷ 305	5.	51106250 ÷ 630
6.	24609235 ÷ 345	6.	50326473 ÷ 621	6.	7179454 ÷ 738

	Y		Z
1.	13097742 ÷ 9083	1.	452301846 ÷ 70408
2.	946643130 ÷ 6007	2.	63359226 ÷ 8900
3.	131895920 ÷ 80030	3.	879181440 ÷ 9890
4.	10084910 ÷ 5813	4.	773864091 ÷ 7809
5.	6911514 ÷ 3692	5.	8822849769 ÷ 87009
6.	9293223 ÷ 4703	6.	681478776 ÷ 6072

REDUCTION OF MONEY.

A

Reduce—
1. £1091 to shillings.
2. £133 17s. to pence.
3. £85 17s. 4d. to halfpence.
4. £53 2s. 9¾d. to farthings.

B

Reduce—
1. £1697 2s. to shillings.
2. £173 8s. 4d. to pence.
3. £107 6s. 8d. to halfpence.
4. £63 15s. 4½d. to farthings.

C

Reduce—
1. £175 2s. to pence.
2. £108 7s. 8½d. to halfpence.
3. £64 8s. 0d. to farthings.
4. £36064 to half sovereigns.

D

Reduce—
1. £67 11s. 1½d. to halfpence.
2. £44 3s. 11d. to farthings.
3. £26265 to half sovereigns.
4. £1530 9s. to sixpences.

E

Reduce—
1. £21 17s. 9d. to farthings.
2. £16365 to half sovereigns.
3. £1030 8s. to sixpences.
4. £220 19s. 7d. to pence.

F

Reduce—
1. 16516 10s. to half sovereigns.
2. £1040 10s. to sixpences.
3. £223 1s. 8d. to pence.
4. £6243 to florins.

G

Reduce—
1. £1785 10s. 6d. to sixpences.
2. £340 2s. to pence.
3. £9182 14s. to florins.
4. £1700 10s. to fourpences.

H

Reduce—
1. £262 13s. to pence.
2. £7212 16s. to florins.
3. £1373 17s. 4d. to fourpences.
4. £1159 4s. to threepences.

I

Reduce—
1. £10203 to florins.
2. £1870 11s. to fourpences.
3. £1530 9s. to threepences.
4. £1105 6s. 6d. to twopences.

J

Reduce—
1. £1213 18s. 4d. to fourpences.
2. £1040 10s. to threepences.
3. £780 7s. 6d. to twopences.
4. £25760 to crowns.

K

Reduce—
1. £1181 18s. 6d. to threepences
2. £867 1s. 8d. to twopences.
3. £28336 to crowns.
4. 117760 guineas to pounds.

L

Reduce—
1. 6543 shillings to pounds.
2. 104688 pence to £ s. d.
3. 259306 halfpence to £ s. d.
4. 616544 farthings to £ s. d.

M

Reduce—
1. 51860 pence to £ s. d.
2. 161370 halfpence to £ s. d.
3. 422608 farthings to £ s. d.
4. 21810 sixpences to £ s. d.

N

Reduce—
1. 311168 halfpence to £ s. d.
2. 7401 farthings to £ s. d.
3. 33931 sixpences to £ s. d.
4. 56716 fourpences to £ s. d.

O

Reduce—
1. 3753 farthings to £ s. d.
2. 17287 sixpences to £ s. d.
3. 32715 fourpences to £ s. d.
4. 50414 threepences to £ s. d.

U

Reduce—
1. £35 13s. 5½d. to farthings.
2. £5657 to half-crowns.
3. 22614 sixpences to £ s. d.
4. 31839 halfpence to £ s. d.

P

Reduce—
1. 67219 sixpences to £ s. d.
2. 10550 fourpences to £ s. d.
3. 149796 threepences to £ s. d.
4. 234885 twopences to £ s. d.

V

Reduce—
1. 496398 shillings to guineas.
2. 365935½ florins to guineas.
3. 10390 guineas 10s. to crowns
4. 224 guineas 10s. 2d. to pence

Q

Reduce—
1. 76345 fourpences to £ s. d.
2. 106095 threepences to £ s. d.
3. 173073 twopences to £ s. d.
4. 1469012 farthings to £ s. d.

W

Reduce—
1. 152738 pence to florins.
2. 873970 halfpence to crowns.
3. 740 half-crowns 2s. to farthings
4. 91419 farthings to £ s. d.

R

Reduce—
1. 74174 threepences to £ s. d.
2. 127242 twopences to £ s. d.
3. 107631 farthings to £ s. d.
4. 12483 florins to £ s. d.

X

Reduce—
1. 26184 half-crowns to florins.
2. 218200 shillings to crowns.
3. 1370 guineas 20s. to sixpences
4. 560 half-sovs. 6s. 6d. to pence

S

Reduce—
1. 1793 half-crowns to £ s. d.
2. 3142095 farthings to £ s. d.
3. 4764 florins to £ s. d.
4. 2181 crowns to £ s. d.

Y

Reduce—
1. 84828 threepences to £ s. d.
2. 46213 sixpences to £ s. d.
3. £2121 8s. to fourpences.
4. £1657 19s. 9d. to threepences

T

Reduce—
1. £149984 2s. to guineas.
2. 60543 crowns to £ s. d.
3. 16644 florins to £ s. d.
4. 424421 pence to £ s. d.

Z

Reduce—
1. £34 1s. 10½d. to farthings.
2. 27860 fourpences to £ s. d.
3. £122 1s. 3d. to halfpence.
4. 33285 halfpence to £ s. d.

Test.

Reduce—
1. £5657 to half-crowns.
2. 22614 sixpences to £ s. d.
3. £6243 to florins.
4. 7401 farthings to £ s. d.

COMPOUND ADDITION.

A

(1) d.	(2) d.	(3) s.	(3) d.	(4) s.	(4) d.
$9\frac{1}{2}$	$11\frac{3}{4}$	1	$2\frac{1}{4}$	2	1
$9\frac{1}{4}$	$10\frac{3}{4}$	1	$4\frac{1}{2}$	1	$3\frac{3}{4}$
$4\frac{1}{4}$	$11\frac{1}{2}$	0	$9\frac{1}{4}$	0	$7\frac{1}{2}$
5	8	1	4	1	$9\frac{3}{4}$

B

(1) d.	(2) d.	(3) s.	(3) d.	(4) s.	(4) d.
$7\frac{3}{4}$	$11\frac{1}{2}$	1	$2\frac{1}{4}$	3	$1\frac{1}{4}$
$8\frac{3}{4}$	$10\frac{3}{4}$	1	$3\frac{1}{2}$	0	$10\frac{3}{4}$
$5\frac{1}{2}$	$11\frac{1}{2}$	0	$9\frac{3}{4}$	0	$11\frac{1}{2}$
8	$11\frac{1}{4}$	0	10	0	$10\frac{1}{2}$

C

(1) d.	(2) d.	(3) s.	(3) d.	(4) s.	(4) d.
$9\frac{3}{4}$	$10\frac{3}{4}$	1	$2\frac{1}{4}$	2	1
$7\frac{1}{2}$	$11\frac{1}{2}$	1	$4\frac{1}{2}$	1	4
$8\frac{1}{4}$	$9\frac{3}{4}$	0	$7\frac{3}{4}$	1	3
$6\frac{1}{2}$	$6\frac{1}{4}$	1	1	1	2

D

(1) £	s.	d.	(2) £	s.	d.	(3) £	s.	d.	(4) £	s.	d.
9	2	2	9	0	3	10	6	$0\frac{3}{4}$	19	8	0
4	3	0	9	2	$0\frac{3}{4}$	9	6	4	20	0	$5\frac{3}{4}$
5	0	4	2	11	$4\frac{1}{2}$	10	10	$0\frac{1}{2}$	67	14	$11\frac{1}{2}$
6	1	2	15	15	$5\frac{1}{4}$	14	6	$0\frac{1}{4}$	433	0	$11\frac{3}{4}$

E

(1) £	s.	d.	(2) £	s.	d.	(3) £	s.	d.	(4) £	s.	d.
7	0	4	7	0	$3\frac{1}{4}$	12	3	6	900	0	0
30	4	3	7	8	5	30	3	$3\frac{3}{4}$	45	4	$10\frac{3}{4}$
16	8	$7\frac{1}{4}$	53	16	2	31	19	$2\frac{1}{4}$	66	16	$3\frac{1}{2}$
21	13	$4\frac{1}{2}$	17	19	$9\frac{1}{4}$	20	18	$6\frac{3}{4}$	28	3	$9\frac{3}{4}$

F

(1) £	s.	d.	(2) £	s.	d.	(2) £	s.	d.	(4) £	s.	d.
1	16	4	9	6	$3\frac{1}{2}$	14	17	$4\frac{1}{2}$	86	17	$5\frac{1}{2}$
0	4	2	8	17	$0\frac{1}{2}$	14	8	$10\frac{1}{4}$	376	19	$7\frac{3}{4}$
0	8	$7\frac{1}{2}$	9	14	$11\frac{3}{4}$	10	12	6	32	18	$11\frac{1}{4}$
0	1	0	3	9	$10\frac{1}{2}$	6	9	$10\frac{3}{4}$	88	12	$11\frac{1}{2}$

G

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1	0	0	3	0	0	30	0	6	900	0	0
0	7	6	4	3	8¼	4	7	3¼	14	6	10
2	17	1	4	16	11½	25	18	10¾	77	18	3
1	0	1¼	62	14	7¾	10	13	6¼	34	14	2
2	9	6	7	9	0	25	3	5¼	33	7	9

H

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
13	7	4½	218	9	5¾	89	3	6½	210	7	7½
10	10	0	79	10	7¾	79	13	3¾	189	3	4¾
4	2	8½	69	11	10¼	169	14	4¼	117	14	0¾
1	16	0¼	78	18	1	100	15	5¼	16	10	1
12	12	2¼	98	14	10¾	178	15	8½	215	10	4

I

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
21	16	6¼	1	19	7	6	8	8	13	8	9
21	5	4½	1	18	3¼	1	12	2½	28	10	3
3	15	3½	1	0	5	3	10	3½	29	4	6¼
16	16	4¼	0	16	7¼	4	3	7¾	8	14	6
5	13	4	1	19	3¾	70	9	10	17	4	8

J

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
747	5	9½	643	7	10½	40	2	11¾	939	4	1¾
868	17	10¾	29	13	6¾	49	1	4¼	846	19	2¾
3297	16	11¼	76	17	4¾	12	10	3	6029	17	10¾
463	17	8¾	284	9	7¼	4	5	0½	4076	19	10¾
4077	6	2¼	35	19	6¾	6	2	8¼	592	19	5½

K

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
47	6	6¼	98	4	7¼	65	9	8¼	74	8	9½
56	13	11½	76	16	10½	57	19	4¼	178	14	7½
64	17	2¾	45	17	11¾	96	18	3½	296	13	8¾
73	18	3½	53	18	11¼	108	17	2¼	139	12	3¾
393	8	2	453	5	0¼	543	3	5¾	282	18	7½

L

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
39	16	$4\frac{3}{4}$	41	17	$11\frac{1}{2}$	101	19	$10\frac{1}{2}$	74	10	$4\frac{1}{4}$
27	19	$3\frac{1}{2}$	39	18	$10\frac{3}{4}$	76	14	$9\frac{3}{4}$	9	9	$7\frac{3}{4}$
86	17	$11\frac{1}{4}$	88	16	$9\frac{1}{2}$	54	6	$1\frac{3}{4}$	98	18	$0\frac{3}{4}$
15	18	$2\frac{3}{4}$	96	13	$8\frac{3}{4}$	18	6	$0\frac{1}{4}$	6	17	$3\frac{1}{2}$
43	9	$7\frac{1}{4}$	48	10	$9\frac{3}{4}$	164	15	$1\frac{1}{4}$	330	7	$0\frac{3}{4}$

M

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
4163	13	$7\frac{3}{4}$	3274	3	7	7025	14	$7\frac{3}{4}$	8026	4	$3\frac{1}{2}$
7129	14	$0\frac{3}{4}$	9986	17	$4\frac{1}{2}$	9865	13	$6\frac{1}{2}$	9764	7	$4\frac{3}{4}$
398	2	$3\frac{3}{4}$	9987	14	$2\frac{3}{4}$	9874	12	$4\frac{3}{4}$	8876	12	$5\frac{1}{4}$
4767	9	$6\frac{3}{4}$	4123	16	1	9893	9	$2\frac{1}{2}$	9321	9	$7\frac{1}{2}$
14587	18	$9\frac{1}{2}$	7860	2	$0\frac{1}{2}$	7942	17	$9\frac{3}{4}$	22869	3	$6\frac{3}{4}$
774	3	$11\frac{1}{2}$	7599	10	$2\frac{1}{4}$	6412	14	$4\frac{3}{4}$	2360	5	$0\frac{1}{4}$

N

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
8062	17	$3\frac{1}{4}$	7873	16	$6\frac{1}{2}$	7034	14	$3\frac{1}{4}$	9935	13	$4\frac{1}{2}$
7864	18	$6\frac{3}{4}$	9872	14	$7\frac{1}{4}$	8964	7	$7\frac{1}{4}$	9999	12	$7\frac{3}{4}$
987	15	$7\frac{1}{2}$	3416	13	$8\frac{1}{2}$	9834	18	$4\frac{1}{4}$	8899	11	$8\frac{3}{4}$
349	14	$11\frac{3}{4}$	987	10	$9\frac{1}{4}$	8764	6	$2\frac{1}{2}$	7896	10	$6\frac{1}{2}$
687	13	$2\frac{1}{2}$	6479	7	$10\frac{1}{2}$	5987	19	$9\frac{1}{2}$	9876	9	$9\frac{1}{4}$
3261	1	$10\frac{1}{4}$	3493	19	1	629	15	$9\frac{1}{4}$	4912	4	$4\frac{1}{4}$

O

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
3036	10	$7\frac{1}{2}$	227	4	$7\frac{1}{2}$	387	6	$7\frac{1}{2}$	10000	0	$0\frac{1}{2}$
789	2	$6\frac{3}{4}$	8964	5	$4\frac{1}{2}$	496	9	$3\frac{1}{2}$	3029	17	6
6987	3	$5\frac{1}{4}$	874	8	$8\frac{1}{2}$	200	0	0	4796	13	$0\frac{1}{4}$
4876	11	$4\frac{3}{4}$	987	7	$6\frac{3}{4}$	79	18	$9\frac{1}{4}$	9803	14	$8\frac{3}{4}$
43890	18	$3\frac{1}{2}$	96	6	$9\frac{3}{4}$	98	17	$8\frac{1}{4}$	198	12	$0\frac{1}{2}$
2243	16	$8\frac{1}{4}$	60271	9	7	6107	16	$10\frac{1}{2}$	63760	7	$3\frac{1}{4}$
						791	15	$0\frac{1}{2}$	237	18	$10\frac{3}{4}$

P

(1) £	s.	d.	(2) £	s.	d.	(3) £	s.	d.	(4) £	s.	d.
7698	18	2¼	8706	11	3¼	9870	14	2¼	9876	19	3¾
67840	3	11¾	980	3	4½	8076	13	8½	807	18	7¾
780	13	10¼	706	9	11¾	907	15	6¾	406	17	6¾
97	16	4½	1076	19	10½	807	3	10¼	99873	16	5¾
89	3	7¼	80	18	5¾	71708	16	11¾	208	15	4¾
5925	8	0	81185	1	5¼	761	10	4½	706	14	2¾
						9897	9	4	352	2	8½

Q

(1) £	s.	d.	(2) £	s.	d.	(3) £	s.	d.	(4) £	s.	d.
9876	13	3¾	781	8	7½	87807	13	0¾	807	7	9¼
98074	14	7¾	98	7	10½	896	12	1¼	63029	18	8½
2079	15	8¾	9607	16	3½	24	11	2¾	306	14	7¼
8076	16	6¾	1409	5	2½	807	10	3¼	9	13	3½
307	17	5¾	38	14	9½	38	9	4¾	87804	16	2¼
90	18	10¾	319	6	9½	47407	8	5¼	980	6	1½
3929	8	0½	1008	9	10½	5804	7	6¾	6	14	9¼
						55	13	5¼	99	14	6½

R

(1) £	s.	d.	(2) £	s.	d.	(3) £	s.	d.	(4) £	s.	d.
89807	19	7¼	90780	2	4¾	7706	18	11¾	70780	2	7¼
1806	18	6½	89	13	7½	93	3	11½	98	16	8½
94	17	8¼	7	4	0¾	2	12	10¼	1783	13	2¾
3	16	9¼	69	15	6½	78	6	11¼	23062	12	10½
70020	15	7¼	78784	6	3¼	607	7	10½	9	17	1½
764	14	3¼	3697	17	2½	9803	14	9½	830	14	7¾
749	3	10½	22	7	6¼	72	12	11¾	97080	13	2¼
						0	6	2¾	210	17	1¼

S

(1) £	s.	d.	(2) £	s.	d.	(3) £	s.	d.
2076	3	4¼	7806	18	10¾	780	17	3¼
298	7	6½	973	17	10½	7967	16	9¾
3076	14	7¾	25	19	10¾	980	15	11½
9807	17	8¾	24283	18	9½	308	14	8¾
9689	15	7¾	87	16	10¾	706	13	7½
5089	16	6¾	609	19	10½	39	19	6¾
78	19	5¾	7803	15	9¾	489	18	5½
903	10	4½	21	19	6¾	40786	17	4¾
194	12	10¼	5	14	8¾	459	16	9½
						8	12	9½

T

(1)

£	s.	d.
79864	17	9¼
9073	10	2½
29	4	3¾
330078	3	8½
806	9	9¼
97	18	9¾
204	17	8¼
78	16	2¼
8	9	10

(2)

£	s.	d.
783	19	8½
29	18	7¼
763	16	4¾
49027	18	7½
847	19	3¼
609	7	0¼
38	2	0
17	7	6
916	14	10½

(3)

£	s.	d.
19064	6	4½
207	19	7¼
32039	18	3½
10008	2	11¾
697	19	10¼
14	14	3
613	2	4¼
87	7	8¼
807	8	6
101	4	9¼

U

(1)

£	s.	d.
47806	4	7½
870	17	4¼
98	18	7½
693	19	3¾
7184	18	4½
69	19	7¾
6474	18	4¼
83	16	3¼
94	18	7¾
784	9	2
85	4	11

(2)

£	s.	d.
1786	18	4¾
78	17	5½
903	16	4¾
24	19	7¾
780	15	8¾
39	14	9¾
8	15	10¾
2786	12	11¼
398	11	10½
678	10	7½
7	12	9¼

(3)

£	s.	d.
7806	17	4¾
473	18	3¼
29	19	10½
4186	18	7¼
780	12	4½
22069	16	7½
6739	19	4¾
900178	17	2½
7300694	18	6
93	19	3
87	12	4
96	14	10¼

V

(1)

£	s.	d.
8486	8	0¼
983	7	2½
287	8	3¼
96	6	0
450	2	4¼
934070	3	2
39	4	1½
903	7	7
86	2	2¼
74	11	6
69	3	2½

(2)

£	s.	d.
2076	6	7½
384	8	8¼
78	2	3¼
96	19	8¼
90049	17	6½
307	7	4¼
8086	8	9
210	12	3¼
78	18	1
694	17	6½
976	6	2¼

(3)

£	s.	d.
80762	18	2¼
78	19	3½
907	3	10¼
2043	7	11½
468	8	3¾
703	12	10½
27098	19	9¼
76	10	11½
447	9	10¼
20	17	11½
341	7	8¾
394	8	8

W

(1)

£	s.	d.
40643	17	8½
70004	2	4
2076	3	1
307	2	0¾
98	3	0¼
907	8	1
6847	7	6
906	2	4
87	7	0¼
4409	8	9
38	7	6
876	8	3
70	2	3
9	7	0¼
3	2	7¼

(2)

£	s.	d.
58706	14	3½
30204	2	6¼
27060	8	3
3706	2	0¼
2070	8	0
2309	0	6
290	0	7
78	2	4
65	0	11
7	2	1¼
3	8	3½
7012	16	9
602	2	1¼
478	13	7
45	2	11

(3)

£	s.	d.
780776	19	11¾
680734	18	10½
99076	17	9¼
5000807	18	3¾
8000087	19	11½
603	18	7¾
94	18	4¾
708	16	9¼
9	19	11½
17	17	3¼
2607	18	9¾
28	19	10½
987	18	11¾
60	17	6¾
9	19	11½
468	8	6½

X

(1)

£	s.	d
570807	18	11¼
20786	17	8¾
38070	19	6¾
7083	12	10½
8204	19	3¾
7600	18	7¼
800	19	4½
97	16	3¼
80	17	2½
22006	18	3¼
1244	10	11½
307	19	6¾
6804	18	7¾
219	17	6½
790	1	11¾

(2)

£	s.	d.
180706	18	2¼
423070	2	0
20763	7	8
32007	3	6½
40076	8	9½
62000	2	7
807	4	7
86	8	6
70	9	3½
4	3	0¼
6083	8	7
12	6	9¼
742	2	5
1807	7	3¼
2540	11	7

(3)

£	s.	d.
20647	19	4½
710769	18	7¾
307	19	11¾
82406	18	7½
9076	17	6¾
207	18	11½
9	19	7¾
807	18	11¾
6483	17	6½
217	19	4½
8907	17	6½
21	18	7¾
706	19	6¾
2007	15	4½
803	10	7½
5180	14	2¾

COMPOUND SUBTRACTION.—Ex. 1.

A

(1) s.	d.	(2) s.	d.	(3) s.	d.	(4) s.	d.
7	11	8	9	7	10	6	11
5	1	5	3	3	2	1	1

B

(1) s.	d.	(2) s.	d.	(3) s.	d.	(4) s.	d.
4	$5\frac{1}{2}$	6	10	7	$0\frac{3}{4}$	8	$3\frac{1}{2}$
2	4	3	1	2	$11\frac{1}{4}$	2	$5\frac{1}{2}$

C

(1) s.	d.	(2) s.	d.	(3) s.	d.	(4) s.	d.
8	$2\frac{1}{4}$	9	1	9	$2\frac{1}{4}$	9	$8\frac{1}{2}$
1	$9\frac{3}{4}$	1	$10\frac{3}{4}$	0	$10\frac{3}{4}$	0	$1\frac{3}{4}$

D

(1) £	s.	d.	(2) £	s.	d.	(3) £	s.	d.	(4) £	s.	d.
945	4	9	986	8	0	27	13	$0\frac{3}{4}$	938	5	6
425	2	4	338	2	8	19	18	$10\frac{1}{2}$	114	2	4

E

(1) £	s.	d.	(2) £	s.	d.	(3) £	s.	d.	(4) £	s.	d.
1697	6	5	976	3	2	169	2	$6\frac{1}{4}$	3410	2	$11\frac{1}{4}$
933	19	5	119	16	10	73	17	$11\frac{1}{2}$	2359	16	$11\frac{1}{4}$

F

(1) £	s.	d.	(2) £	s.	d.	(3) £	s.	d.	(4) £	s.	d.
32	0	0	763	2	$1\frac{1}{4}$	784	6	10	1206	7	3
29	13	4	731	13	11	352	3	4	696	5	10

G

(1) £	s.	d.	(2) £	s.	d.	(3) £	s.	d.	(4) £	d.	d.
232	0	0	33	0	0	124	0	2	680	1	4
5	17	4	29	10	$10\frac{1}{2}$	79	11	$8\frac{1}{2}$	159	18	11

H

(1) £	s.	d.	(2) £	s.	d.	(3) £	s.	d.	(4) £	s.	d.
66	1	$3\frac{1}{4}$	27	0	3	938	3	11	999	11	1
2	14	$10\frac{3}{4}$	19	6	$0\frac{3}{4}$	127	18	$11\frac{1}{2}$	0	0	5

I

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
648	13	0	133	0	1	630	3	6	630	14	4
438	11	10	99	10	$8\frac{1}{2}$	625	15	$4\frac{1}{2}$	100	10	11

J

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
92	0	$0\frac{1}{4}$	94	4	$0\frac{3}{4}$	713	0	$6\frac{1}{4}$	886	10	$10\frac{1}{2}$
88	1	10	51	15	$9\frac{1}{4}$	177	16	$6\frac{1}{4}$	238	5	$6\frac{1}{2}$

K

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
211	3	$1\frac{1}{4}$	312	2	$6\frac{1}{4}$	313	9	$5\frac{1}{4}$	214	4	$0\frac{3}{4}$
99	0	$9\frac{1}{2}$	186	1	$10\frac{3}{4}$	179	19	$11\frac{3}{4}$	71	15	$8\frac{1}{4}$

L

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
166	4	9	127	10	$7\frac{3}{4}$	88	13	$1\frac{1}{4}$	189	1	7
96	17	$10\frac{1}{2}$	49	5	$10\frac{1}{2}$	6	8	$9\frac{3}{4}$	91	18	$10\frac{3}{4}$

M

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
169	2	$6\frac{1}{4}$	613410	2	$11\frac{1}{2}$	120044	3	$1\frac{1}{2}$	10312	2	$6\frac{3}{4}$
73	17	$11\frac{1}{2}$	509359	16	$11\frac{1}{2}$	5588	16	$7\frac{1}{2}$	9075	17	$10\frac{3}{4}$

N

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
120044	3	$1\frac{1}{2}$	21028	14	1	1949	14	$3\frac{1}{4}$	3010210	3	4
112548	16	$6\frac{3}{4}$	12866	9	$9\frac{1}{2}$	1013	9	$10\frac{1}{4}$	2904139	15	4

O

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
10316	2	$3\frac{1}{2}$	1217	3	$8\frac{1}{2}$	404218	0	$2\frac{1}{4}$	4219	4	3
8667	15	$11\frac{1}{4}$	1043	19	$3\frac{1}{4}$	385852	15	$6\frac{3}{4}$	2280	18	8

P

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
2127	5	1	90068	2	$1\frac{1}{4}$	3949	14	3	193310	2	4
2049	0	$3\frac{3}{4}$	5211	15	$9\frac{1}{4}$	3013	9	10	90269	17	4

Q

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
6274	4	$2\frac{1}{4}$	114035	1	8	1066	4	$1\frac{1}{2}$	11047	1	$6\frac{1}{4}$
2031	15	$10\frac{3}{4}$	60999	17	8	1002	17	9	3763	16	$1\frac{3}{4}$

R

(1)			(2)			(3)			(4)		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
3088	0	$3\frac{1}{2}$	421029	11	$1\frac{1}{4}$	712610	3	7	100511	3	$2\frac{1}{4}$
3001	15	$7\frac{3}{4}$	329202	7	$7\frac{1}{4}$	606539	15	7	99355	16	$8\frac{1}{4}$

S

(1)

£	s.	d.
700213	3	$2\frac{1}{4}$
686949	13	$8\frac{3}{4}$

(2)

£	s.	d.
1122414	13	$3\frac{1}{2}$
976744	4	$11\frac{1}{2}$

(3)

£	s.	d.
1024515	10	3
866924	19	10

(4)

£	s.	d.
712416	3	$7\frac{3}{4}$
547551	15	$7\frac{3}{4}$

T

(1)

£	s.	d.
10512	0	$0\frac{1}{4}$
10385	19	$4\frac{3}{4}$

(2)

£	s.	d.
1413	4	1
60	17	8

(3)

£	s.	d.
2423	4	$1\frac{1}{2}$
980	18	$7\frac{1}{2}$

(4)

£	s.	d.
30415	2	3
28854	14	10

U

(1)

£	s.	d.
712416	3	$4\frac{1}{4}$
545935	13	$10\frac{1}{4}$

(2)

£	s.	d.
1043217	2	$1\frac{1}{2}$
869765	15	$5\frac{1}{2}$

(3)

£	s.	d.
1000208	2	11
981842	18	$3\frac{1}{2}$

(4)

£	s.	d.
1043219	3	9
849361	16	3

V

(1)

£	s.	d.
200043	14	1
168827	15	$10\frac{3}{4}$

(2)

£	s.	d.
300114	2	$4\frac{1}{4}$
295669	13	$10\frac{3}{4}$

(3)

£	s.	d.
1012135	14	2
955565	6	9

(4)

£	s.	d.
373118	15	$1\frac{3}{4}$
304628	5	$7\frac{3}{4}$

W

(1)

£	s.	d.
123412	0	$2\frac{1}{4}$
110925	19	$6\frac{3}{4}$

(2)

£	s.	d.
1042313	3	7
908360	17	2

(3)

£	s.	d.
3004314	2	9
2860057	15	9

(4)

£	s.	d.
300315	5	3
145754	17	10

X

(1)

£	s.	d.
703212	1	$4\frac{1}{2}$
680785	18	$8\frac{1}{2}$

(2)

£	s.	d.
600083	0	$2\frac{1}{2}$
275809	19	$10\frac{3}{4}$

(3)

£	s.	d.
600154	4	3
139507	15	$7\frac{1}{2}$

(4)

£	s.	d.
702395	11	2
647845	5	9

Y

(1)

£	s.	d.
112156	7	4
105247	0	$5\frac{1}{2}$

(2)

£	s.	d.
102117	3	1
94338	18	$3\frac{3}{4}$

(3)

£	s.	d.
1302128	0	1
1212517	15	$1\frac{1}{2}$

(4)

£	s.	d.
602079	10	7
592442	7	$10\frac{3}{4}$

Z

(1)

£	s.	d.
74057	11	3
515	6	6

(2)

£	s.	d.
610278	2	$1\frac{1}{4}$
601711	17	$5\frac{3}{4}$

(3)

£	s.	d.
130499	9	3
32308	19	6

(4)

£	s.	d.
6031010	10	$1\frac{1}{2}$
6020909	19	$1\frac{1}{2}$

Test (1)

(1)

£	s.	d.
300811	0	11
181911	19	1

(2)

£	s.	d.
17610912	0	$0\frac{1}{4}$
5502791	18	$8\frac{3}{4}$

(3)

£	s.	d.
1020613	10	$3\frac{1}{4}$
882721	19	$11\frac{1}{4}$

(4)

£	s.	d.
6203514	3	$7\frac{1}{2}$
6056429	13	$11\frac{1}{2}$

EXAMINATIONS. [SECOND QUARTER.

A

(1) $1150848 \div 94$

(2) $96163275 \div 725$

(3)

£	s.	d.
8076	19	$8\frac{1}{4}$
9708	18	$7\frac{3}{4}$
120823	17	$6\frac{1}{4}$
4203	16	$5\frac{3}{4}$
28	13	2

(4)

1100312	4	$1\frac{1}{4}$
947266	18	$1\frac{1}{4}$

(5) Reduce 97934 fourpences to £ s. d.

B

(1) $912202 \div 43$

(2) $404238 \div 127$

(3)

£	s.	d.
9083	18	$2\frac{1}{4}$
876	19	$3\frac{1}{4}$
20	4	$5\frac{3}{4}$
32005	2	6
37	18	$2\frac{1}{2}$

(4)

121034	2	$6\frac{1}{2}$
69008	19	$6\frac{1}{2}$

(5) Reduce 25207 sixpences to £ s. d.

C

(1) $3956776 \div 48$

(2) $80958528 \div 873$

(3)

£	s.	d.
50072	4	$2\frac{1}{4}$
1803	7	$3\frac{3}{4}$
51072	18	$9\frac{1}{4}$
69	3	1
22	11	$7\frac{1}{2}$

(4)

810	2	$1\frac{1}{4}$
697	19	$9\frac{1}{2}$

(5) Reduce 12483 florins to £ s. d.

D

(1) $105833 \div 79$

(2) $13314945 \div 923$

(3)

£	s.	d.
7824	13	$9\frac{3}{4}$
689	14	$7\frac{3}{4}$
2070	17	$8\frac{3}{4}$
384	4	$6\frac{3}{4}$
143590	16	8

(4)

1020103	7	8
855238	19	8

(5) Bring 41391 halfpence to £ s. d.

E

(1) $889604 \div 57$

(2) $202768 \div 123$

(3)

£	s.	d.
7896	12	$9\frac{1}{4}$
207	18	2
89	7	$4\frac{1}{4}$
166407	6	2
567	3	$11\frac{1}{2}$

(4)

80231	4	$3\frac{1}{4}$
78394	18	$11\frac{1}{4}$

(5) Bring 15659 half-crowns to £ s. d.

F

(1) $93152 \div 29$

(2) $4650064 \div 1096$

(3)

£	s.	d.
8906	12	$8\frac{1}{2}$
267	2	$9\frac{3}{4}$
41080	8	0
1349	17	$9\frac{1}{4}$
926	2	$1\frac{1}{2}$

(4)

21081	5	$3\frac{1}{4}$
14777	18	$10\frac{3}{4}$

(5) Bring £151 14s. $9\frac{1}{2}$d. to half-pence.

G

(1) 167004 ÷ 78

(2) 2370632 ÷ 731

(3)

£	s.	d.
9807	3	$7\frac{1}{4}$
684	2	$1\frac{1}{2}$
203	3	2
32019	1	4
118	13	$3\frac{1}{4}$

(4)

8070621	2	3
2767080	17	10

(5) Reduce £803 2s. to threepences.

H

(1) 633626 ÷ 87

(2) 27219528 ÷ 327

(3)

£	s.	d.
3806	2	$1\frac{1}{4}$
980	1	$0\frac{1}{2}$
87529	3	2
1324	10	$3\frac{1}{4}$
5	8	9

(4)

380107	4	$9\frac{1}{4}$
276056	18	$9\frac{1}{4}$

(5) Reduce £1889 1s. 4d. to fourpences.

I

(1) 114876 ÷ 92

(2) 5452030 ÷ 407

(3)

£	s.	d.
9807	19	$11\frac{3}{4}$
8039	18	$10\frac{3}{4}$
864	17	$11\frac{1}{2}$
125027	19	$9\frac{3}{4}$
515	10	$4\frac{1}{4}$

(4)

180207	3	1
22616	12	8

(5) Reduce £4202 8s. to sixpences.

J

(1) 367461 ÷ 85

(2) 40047965 ÷ 748

(3)

£	s.	d.
786	18	$7\frac{1}{2}$
90	3	$8\frac{1}{2}$
62608	16	$9\frac{1}{2}$
713	2	$10\frac{1}{2}$
49	3	$4\frac{1}{4}$

(4)

30060	2	$7\frac{1}{4}$
22776	17	$2\frac{3}{4}$

(5) Bring 41391 halfpence to £ s. d.

K

(1) 822589 ÷ 87

(2) 710872960 ÷ 6899

(3)

£	s.	d.
10736	18	$7\frac{3}{4}$
101002	13	$9\frac{1}{4}$
874	19	$8\frac{2}{4}$
903	12	$6\frac{1}{2}$
937	1	$9\frac{1}{2}$

(4)

13021	10	3
535	9	$7\frac{1}{2}$

(5) Bring £139 10s. 8d. to farthings.

L

(1) 603109 ÷ 93

(2) 1838749 ÷ 250

(3)

£	s.	d.
10163	7	$8\frac{1}{2}$
9876	8	$4\frac{3}{4}$
827813	14	$7\frac{1}{2}$
629	6	$8\frac{3}{4}$
83	7	2

(4)

10000	2	$8\frac{1}{2}$
544	18	$1\frac{3}{4}$

(5) Bring 4161 crowns to £ s. d.

M

(1) 282121 ÷ 38

(2) 6303943 ÷ 729

(3)

£	s.	d.
3106	2	$0\frac{3}{4}$
879	3	$11\frac{1}{2}$
950180	14	$7\frac{1}{4}$
397	2	9
73	19	$3\frac{3}{4}$

(4)

128070	3	$4\frac{3}{4}$
20989	14	$4\frac{3}{4}$

(5) Reduce 95079 threepences to £ s. d.

N

(1) 3054800 ÷ 56

(2) 28001678 ÷ 4200

(3)

£	s.	d.
3012	17	$10\frac{3}{4}$
786	18	$10\frac{3}{4}$
70	19	$11\frac{1}{4}$
738203	19	$10\frac{3}{4}$
420	9	$10\frac{3}{4}$

(4)

90010760	1	$4\frac{1}{4}$
5962193	16	$8\frac{3}{4}$

(5) Reduce £11932 17s. 6d. to half-crowns.

O

(1) 809510 ÷ 84

(2) 212767960 ÷ 1987

(3)

£	s.	d.
2011	12	$4\frac{1}{2}$
8800103	7	$3\frac{1}{4}$
87002	13	$8\frac{3}{4}$
110000101	16	$1\frac{1}{4}$
9890	11	$8\frac{1}{2}$

(4)

20038	0	$2\frac{1}{4}$
7917	18	$10\frac{3}{4}$

(5) Reduce 131941 farthings to £ s. d.

P

1. Divide 186092 by 83.
2. Find the 367th part of 1245843.
3. Add up £2076 19s. $0\frac{1}{4}$d.; £379 18s. $2\frac{1}{4}$d.; £28 17s. $0\frac{3}{4}$d.; £4 13s. $7\frac{1}{4}$d.; £1752 0s. 5d.
4. From £310700 2s. 1d. take £252109 12s. 8d.
5. Reduce £6364 4s. to florins.

Q

1. Divide 375607 by 67.
2. What is the 9072nd part of 61028228 ?
3. Find the sum of £97 18s. 3d.; £3206 14s. $1\frac{1}{4}$d.; 19s. $7\frac{1}{2}$d.; £8 3s. 2d.; £4464 9s. $7\frac{1}{2}$d.
4. By how much does £100273 2s. $3\frac{1}{4}$d. exceed £10662 17s. $3\frac{3}{4}$d ?
5. Bring 2196914 pence to £ s. d.

R

1. Divide 459350 by 39.
2. Find the quotient of 10829697 and 859.
3. What is the amount of £10 8s. $7\frac{1}{4}$d.; £987 16s. $3\frac{3}{4}$d; £7089 3s. $11\frac{3}{4}$d.; 17s. $2\frac{3}{4}$d.; £5569 2s. $7\frac{3}{4}$d ?

4. Subtract 185188 15s. 7½d. from £200038 4s. 7d.
5. Reduce 1471 guineas 15 shillings to £ s. d.

S

1. Divide 311589 by 91.
2. How often is 9207 contained in 41293651 ?
3. Add together £3876 0s. 7¼d.; £987 7s. 10d.; £43940 8s. 4¼d.; 9s. 6d.; £7261 0s. 8½d.
4. Take £5120 13s. 3¾d. from £12030 0s. 2¼d.
5. Reduce 47489 fourpences to £ s. d.

T

1. 359546 ÷ 63.
2. How many times can 780 be taken from 5295130 ?
3. Find the sum of £3 18s. 7¾d.; £7112024 17s. 6¼d.; £6 2s. 9½d.; £8 14s. 3¾d.; £75 19s. 2½d.
4. From £8137000 2s. 2¼d. subtract £856 0s. 8¾d.
5. Reduce 56716 fourpences to £ s. d.

U

1. Divide 1037940 by 76.
2. What number multiplied by 8706 makes 128048346 ?
3. Add £2 1s. 3d.; 19s. 11¾d.; £152000 18s. 7½d.; 3s. 8d.; £1041 2s. 5¾d.
4. What sum taken from £2000 leaves £351 13s. 8d. ?
5. Reduce 166293 farthings to £ s. d.

V

1. Divide 315585 by 73.
2. Find the quotient of 8978 and 50331238.
3. Find the amount of £8 3s. 7d.; 14s. 3¾d.; £1296 8s. 7½d.; £99 2s. 5d.; £653201 17s. 8¼d.
4. By how much does £7120100 10s. exceed £974 8s. 8¼d. ?
5. Reduce £1414 5s. 4d. to fourpences.

W

1. Divide 360348 by 49.
2. How often can 9000 be taken from 79272896 ?
3. What is the sum of £100278 17s. 3¼d.; 19s. 1d.; £78 16s. 2d.; £836000 16s.; £95 16s. 0½d. ?
4. From £12027 3s. 4d. take £1866 6s. 4d.
5. Reduce £28891 10s. to crowns.

PROBLEMS. [THIRD QUARTER.

A

1. Find the quotient of 2107755 and the sum of 21 and 44.
2. What number added together seventy-three times makes 3067752?
3. Divide the sum of 137864 and 912135 by 198.
4. The divisor is the sum of 56 and 35, and the dividend the difference between 1000000 and 442981; find the quotient.

B

1. Find the quotient of 12898112 divided by the difference between 400 and 96.
2. What number must I multiply by 407 to make 20763105?
3. What is the seventy-sixth part of 4698624?
4. The dividend is 2571248 and the divisor the sum of 57 and 303; find the quotient.

C

1. How many score of sheep are there in two fields if there are 9100 in one, and 1300100 in the other?
2. A bag containing 895814 marbles was taken to a school of 123 children. The marbles were divided equally among them; how many did each get, and how many remained?
3. How many dozen eggs are there in two crates, if one contains 483489 eggs and the other 495999 eggs?
4. How many years are there in 3384651 days. (365 days makes one year)?

D

1. If a cow cost £13, how many such cows can be bought for £956046?
2. How many hours would it take a train to go 3049984 miles, going at the rate of 37 miles an hour?
3. If there are 739761 apples in 79 casks, how many should we expect to find in one?
4. How many times would a wire 25500000 miles long, reach round the world? (The distance round the world is 25,000 miles.)

E

1. If a person makes 1113632 bricks in one year, how many does he make weekly (52 weeks make one year)?

2. Four bales of cloth, each containing 19 pieces, are found to measure 23727 yards; how many yards are there in one piece?

3. If one train carries 240 tons of coal, how many such trains would it take to carry 1028156 tons?

4. If a builder wants 10819140 bricks, and the brickmaker makes them at the rate of 204 per hour, how many hours will he have to work before he has made enough?

F

1. If a book contains 127347642 letters, and each page on an average contains 2001, how many pages are there in the book?

2. How many miles are there in 1293642 yards (1760 yards make one mile)?

3. If one box contains 176 oranges, how many such boxes would be wanted to pack 146472 oranges?

4. If 408 herrings are packed in one box, how many boxes will it take to hold 381888 herrings?

G

1. If a bicyclist rides on an average 68 miles daily, how many days will he be in riding 2308056 miles?

2. If there are 20340 lines in a book, and 47 lines on each page, how many pages are there?

3. If you can count five score pins in one minute, how many minutes would you be in counting 5404500 pins?

4. What number must be added to the 47th part of 16544 to make 1000?

H

1. Divide the sum of 2467893 and 57893055 by 493.

2. Divide the difference between 556081327 and 37860754 by 3907.

3. Divide the product of 2880 and 2023 by 4080.

4. Multiply the sums of 164, 2887, 987, and 6079 by 1080; then subtract 120, and then divide by 7004.

I

1. If a man buys a farm for £6681 6s. 10¾d. a dozen cows for £300; a dozen horses for £506 12s. 7d.; a pig for £4 19s. 5d.; and a sheep £2 7s. 8d., what does he pay for the lot?

2. A lady gives yearly £7062 10s. 7d. to foreign missions; £1490 19s. 7½d. to home missions; £3 19s. 7¼d. for coats for the poor; and £8 14s. 9¾d. in clothing for the aged; what does she give away in one year?

3. What sum do £90 6s. 8d.; £3 13s. 9¾d.; 18s. 7¾d.; and 5s. 5½d. make?

4. A man owes 1s. 7d. for snuff; 3s. 8d. for beer; 9s. 11d. for tobacco; £7 8s. 6d. rent; and £2 3s. 4d. for wine; find the amount of his debt.

J

1. A boy had £50, and bought a pony for £10; his sister had £30, and bought a piano for £12 0s. 2½d.; how much more had the boy left than his sister?

2. A woman spends weekly 12s. 10¾d. in groceries; 4s. 6d. in coals; 1s. 11d. for oil and candles; 3s. 4¼d. for butchers' meat; 7s. 11d. in sundries; and 5s. 11d. rent; how much does she save out of £2, her husband's wages?

3. A man buys furniture for £100, and sells it for £57 11s. 8½d.; how much does he lose by it?

4. By how much do 2200 shillings exceed £104 16s. 7d.?

K

1. A grocer received on Monday £30 6s. 2d.; on Tuesday £23 14s. 3½d.; on Wednsday £11 17s. 6d.; on Thursday £10 8s. 9½d.; on Friday £4 7s. 8½d.; and on Saturday £31 7s. 10¼d.; how much did he receive during the week?

2. How much does it cost a man who buys the following articles:—hat for 17s. 6d.; coat £4 12s. 6d.; vest 12s. 6d.; trousers £2 0s. 0d.; shirt 5s. 10d.; socks 3s. 6d.; and four pairs of boots at 19s. 1½d. per pair?

3. A man put into the Savings' Bank £22 3s. 7d. in 1879; £24 6s. 9d. in 1880; £26 17s. 8d. in 1881; £29 7s. 6d. in 1882; and £30 13s. 11½d. in 1883; what sum had he in the Bank?

4. What is the amount of £100; 403 shillings; 1538 pence; 11226 farthings; and 250 fourpences?

L

1. A market woman sold 3 geese at 4s. 2d. each; half a dozen hens for 18s.; and half a dozen ducks for £1; and a pig for £1 7s. 8¼d.; what did she receive for the lot?

2. If at a meeting in York Minster the collection consists of four sovereigns, sixteen half sovereigns, four crowns, 32 half-crowns, 16 florins, 82 shilling pieces, 264 sixpences, 129 four pences, 436 threepences, 963 pennies, and 1685 halfpennies, what was the total amount?

3. A man bought a house for £450; a garden for £80; and tools for £10 4s. 5d.; what did the lot cost?

4. If a woman pays £40 yearly for groceries; £10 0s. 4½d. for clothing; and £13 6s. for rent, coals, &c.; what does she pay away annually?

M

1. A banker's clerk receives £20 6s. 11d. from one person; £38 7s. 2½d. from another; £16 from another; and 12s. 5½d. from another; how much did he receive from the four persons?

2. How much money would a man have who had 40 sovereigns, 24 half sovereigns, six crowns, 151 half-crowns, five florins, 265 shillings, 2 sixpences, 11 pennies, and five halfpence?

3. A horse was bought for £63 10s. and sold at a profit of £33 12s. 8½d.; how much was it sold for?

4. A farmer bought 3 cows for £90, and in selling them again he gains £3 7s. 6d. on the first, £4 8s. 9d. on the second, and £3 5s. 9d. on the third; what amount did he sell the three for?

N

1. If a man puts in the bank £5 3s. 6d. in March, £6 2s. 1½d. in June, £4 17s. 8d. in September, and £6 17s. in December, how much has he saved during the year?

2. A person bought a sheep for £3 6s. 7d., and sold it for 11s. 7½d. more than he gave for it; how much did he sell it for?

3. A gentleman lost £127 6s. 9d. on the sale of a horse which he sold for £292 15s. 7d., how much did he give for it?

4. Add together 4003 shillings, 72391 pence, 19925 half-pence, and 16350 farthings.

O

1. From £800 3s. 8d. take £36 16s. 8d.

2. Take 4461 sixpences from £1000.

3. Find the difference between £10465 18s. 5¾d. and £20103 1s. 2d.

4. Which is the greater, and by how much, £2430 2s. 6d. or £1369 15s. 6d.?

P

1. By how much does £3076 2s. 7d. exceed £1931 17s. 2d.?
2. Take 806237 farthings from £2076 1s. 3¼d.
3. Subtract £99 16s. 8¾d. from the sum of £100 and £133 6s. 2¼d.
4. From £3400 2s. 9d. take 466509 pence.

Q

1. A boy had 3s., and bought a knife for 8d.; how much had he left?
2. A girl had £3 10s., and bought a skipping rope for 10½d.; how much had she left?
3. The building of a school cost £240, and the schoolhouse £193 11s. 4½d.; how much did the school cost more than the house?
4. A man owed £1000, and paid back £479 17s. 7d.; what did he still owe?

R

1. A horse was bought for £137 9s. 10½d., and sold for £200 16s. 3d.; how much was gained by it?
2. A watch cost £122 5s. 2¾d., and was sold again for £200 10s.; what sum was gained by it?
3. A horse and carriage cost £140 3s. 6d., the horse alone cost £57 19s. 2½d.; what was the value of the carriage?
4. A load of coals were bought for £1 3s. 10½d., and sold again in two lots; the first lot was sold for 14s. 6d., and the second lot for 19s.; how much was gained by the sale?

S.

1. I had three sovereigns, two half sovereigns, and eight half-crowns in my purse; I spent £1 12s. 6d. at the grocer's; 18s. 8d. at the baker's; what amount had I left?
2. What change ought I to receive out of a five-pound note if I pay £1 for tea, 6s. 8d. for coffee, and 6s. 7d. for sugar?
3. I have a ten-pound note, and out of it pay for a load of coals 16s. 4d., and a suit of clothes £4 15s. 6½d.; what sum of money have I left?
4. A lady has a bag containing £17 8s. 6d., and pays her man-servant £6 2s., her cook £3 4s. 1d., and her housemaid £3.; how much has she left?

T

1. Two buildings are worth £1500, one was sold for £870, the other sold for £696 6s. 7½d.; how much was gained?

2. What change ought a boy to receive out of half a sovereign if he pays 3d. for soap, 6d. for potatoes, 1s. 0¾d. for coffee, 9d. for bread, and 3d. for milk?

3. A girl goes to a grocer's and buys 1lb. of bacon for 10½d., 4lb. of sugar at 3d. per lb., 3lb. of ham at 1s. per lb., 2lb. of coffee at 1s. 8d. per lb., and 1lb. of tea for 3s. 6d.; what change ought she to receive out of a sovereign?

4. A man buys a pair of trousers, 15s.; a vest, 5s.; a coat, 30s.; a hat, 10s. 6d.; a necktie, 1s. 6d.; a shirt, 5s.: what change ought he to receive out of £3 16s. 8¼d.?

U

1. A merchant borrowed £300 in January, and paid £102 2s. 2d. back in February, £60 9s. 0¾d. back in March, and the remainder in April; how much did he pay back in April?

2. A woman, having no money, goes to market with goods which she sells for £1 2s. 9½d.; she then buys 3lb. of ham at 9d. per lb., 4lb. of beef at 10d. per lb., 3lb. of candles at 6d. per lb., and 2lb. of cheese at 8d. per lb.; how much money had she when she got home?

3. I go to John Heywood's, Manchester, and buy three books at 5s. each, four maps at 2s. 6d. each, one dozen slates at 3d. each, one box of pencils at 5d.; what change ought I to receive out of £16 11s. 5d.?

4. A boy goes to Mr. Metcalfe, Ebberston, for 2lb. of treacle at 3d. per lb., 2lb. of butter at 1s. 3d. per lb., 2oz. of sweets at 1d. per oz., 1lb. of candles 6½d.; what change ought the boy to receive out of a sovereign?

V

1. What remains after taking 28066 fourpences from 2000 guineas?

2. A woman goes to F. Thorpe, grocer, for groceries worth 12s. 7d., and to Bradley's for 9s. 11¾d. worth of groceries; what change ought she to get out of £2?

3. A boy saves 3 half-crowns, 4 florins, one half sovereign, 24 sixpences, 25 pennies, and 43 halfpennies; how much was he short of £3?

4. A farmer pays 3 guineas for a sheep, 3s. 3d. for each of three fowls, and £6 19s. 9d. for a pig; what change ought he to receive out of £30?

W

1. What number multiplied by 747 makes 73347930?

2. How many times will the large wheel of a bicycle, the circumference of which is 12 feet, turn round in going a distance of 1272840 feet?

3. If £6139 9s. 4d. be divided equally among thirteen boys, how many pennies would each boy get?

4. How many half-crown caps ought I to get for £15607 10s.?

X

1. If 93713520 oranges are packed in 892 cases, how many would there be in each case?

2. By how much do 1200 guineas exceed 27775 pence?

3. A man bought a clock for £3, a table for 30s., a watch for 3 guineas, a suit of clothes for £5 10s.; what would he have left out of £139 3s. 7½d.?

4. By how much does the quotient of 19 and 54568 exceed the quotient of 16 and 23904?

Y

1. How much does a man save yearly whose income is £2000, if he pays £1000 for household expenses, and £315 11s. in other expenses?

2. How much will it take to pay a man and boy yearly, if the boy earns £24 8s. 5½d. and the man twice as much?

3. If the railway fare from Scarbro' to Manchester (109 miles) is charged at the rate of 1d. per mile, and from Manchester to Bolton at ½d. per mile (11 miles), by how much does the one journey exceed the other in cost?

4. If a man pays £1 10s. to go by steamboat from Liverpool to London, and his wife 18s. going by train, and also 2s. 5½d. for refreshments, how much more does the man pay than his wife?

Z

1. Divide the sum of 26873421 and 44664384 by the difference between 10087 and 7998.

2. If a boy buys a whip for 1d., a top for ½d., a belt for 1s., a cap 10d., a bat 3s. 4½d., what change ought he to get out of half a sovereign?

3. Find the difference between 1000 guineas and £504 15s.

4. Find the difference in £ s. d. between 800 guineas and 80456 halfpence.

INSPECTORS' TESTS. [FOURTH QUARTER.

TO THE TEACHER.—The Inspectors' Arithmetic test for the Third Standard generally consists of a long division sum, one compound addition, one compound subtraction sum, and an easy problem. The children are generally mixed up with the higher Standards; some Inspectors dictate the sums, others give them cards (written and printed).

The following pieces of dictation (letters A, B, and C) and similar sums have been given by Inspectors this year in different districts.

(DICTATED BY INSPECTOR'S ASSISTANT).

A

1. Divide 2646324 by 59.
2. Find the sum of £2802 17s. 11½d.; £38006 19s. 9½d.; £2278 4s. 3½d.; £8373 7s. 11¾d.; £58 12s. 4¾d.
3. From £907351 13s. 0¾d. take £283048 6s. 8¼d.
4. A boy gave 6d. for a whip, 4d. for a top, 7¾d. for a ball, 9d. for cakes, and 10 shillings for a bat; how much had he left out of a sovereign?

Dictation.—I desired him to take it instantly, and not spend so much time in talking about it. On reaching the house he gave the Chip to Mrs. Williams, who read it, threw it away, and went to the tool chest. The chief, wishing to see the result of this strange affair, followed her closely. On receiving the square from her he said "Stay, daughter, how do you know that this is what Mr. Williams wants."

B

On Card—

1. Divide three hundred and forty-six thousand one hundred and eighty-four by forty-eight.
2. What is the sum of £28 14s. 10½d.; £90740 19s. 6¾d.; £17 17s. 8¼d.; £9648 17s. 8d.; and £748129 14s. 10d.?
3. Find the difference between £960076 10s. 3¼d. and £14530 6s. 7¾d.
4. I spend £26 12s. 8½d. less than £100, and save £27 15s. 8½d.; how much do I earn?

Dictation.—More than three hundred years ago, there stood near a small town on the coast of Spain an ancient convent. It still stands there, on a height above the sea, surrounded by a forest of pine trees. A stranger travelling on foot with a little boy one day stopped at the gate of the convent, and

asked the porter to give him a little bread and water for his child. Poor and friendless though he was, when he stood at the convent gate, he afterwards became one of the most famous of men.

C

1. Divide seven thousand one hundred and forty-two by twenty-nine.

2. Find the sum of eight shillings and sevenpence, twenty-five pounds fourteen shillings and sixpence farthing, four hundred pounds eight shillings and elevenpence three farthings, and three thousand and twenty-seven pounds sixteen shillings and fourpence farthing.

3. What is the difference between forty-two thousand three hundred pounds eight shillings and twopence halfpenny and thirty-eight thousand and fifty-seven pounds nineteen shillings and elevenpence?

4. If a man bought ten tubs each containing three hundred and fifty-seven pounds of apples, to how many persons can he sell seven pounds each?

5. If a clock and a watch cost twenty pounds, and the clock cost six pounds nineteen shillings and fivepence three farthings, how much did the watch cost more than the clock?

Dictation.—With whatever respect and admiration a child may regard a father, whose example has called forth his energies and animated him in his various pursuits, he turns with greater affection, and intense love, to a kind-hearted mother. The same emotion follows him through life, and when the changes of after years have removed his parents from him seldom does the remembrance of his mother occur to his mind unaccompanied by the most affectionate recollections.

D

1. Divide six hundred and twelve thousand four hundred and fifty by five hundred and sixty-seven.

2. Find the sum of sixteen shillings and tenpence farthing, thirty-eight pounds four shillings and eightpence halfpenny, six thousand and fifty pounds eighteen shillings and threepence three farthings, seven hundred and ninety-six pounds thirteen shillings and elevenpence halfpenny, and four thousand two hundred and forty-six pounds and fivepence.

3. If a hawker paid six shillings for calico, two shillings and threepence for combs, five shillings and threepence for paint, and one shilling and tenpence halfpenny for needles, and gained seven shillings and threepence in selling goods, how much did he sell them for?

4. Divide 769263 by fifty-eight.

5. If a butter factor bought thirty-one rolls of butter for a guinea, and thirteen rolls for fifty shillings, how much profit would he make if he sold the butter for £4 10s. 9½d. and spends five shillings and fivepence in railway fares?

E

1. Divide two million nine hundred and eighty-three thousand five hundred and seventy-one by eight hundred and seventy-nine.

2. Find the amount of £3176 16s. 4½d.; £6854 13s. 9¼d.; £34105 5s. 8¾d.; £2709 16s. 10¾d.; £25 14s. 8¾d.

3. How much less is seven thousand five hundred and forty-seven pounds sixteen shillings and ninepence farthing than sixty thousand and seventy-eight pounds and twopence farthing?

4. How many farthing candles can be bought for sixty-four pounds and eight shillings?

5. If a sofa and table cost twenty-one pounds, the sofa cost six pounds twelve shillings and eleven pence, how much more did the table cost than the sofa, if I also had to buy a farthing screw to fasten a wheel on the table?

F

1. How many times is twenty-nine contained in three hundred and fifty-eight thousand five hundred and sixty-four.

2. From forty thousand two hundred and six pounds two shillings and one penny farthing take twenty-six thousand nine hundred and forty-two pounds twelve shillings and eightpence three farthings.

3. How many guinea watches can be bought for £149984 2s.

4. Add together eleven shillings and ninepence three farthings, eight pounds seven shillings and sixpence halfpenny, one thousand three hundred and thirty pounds fifteen shillings and eightpence, and two hundred and five pounds ten shillings and elevenpence three farthings.

5. If a man bought four casks of oranges, each containing two thousand eight hundred and eighty-four, to how many persons can he sell seven each?

G

1. Divide six hundred and nineteen thousand six hundred and five by four hundred and one.

2. By how much does forty thousand two hundred pounds eleven shillings exceed thirty-eight thousand five hundred and sixty-eight pounds six shillings and fourpence?

3. Find the cost in £ s. d. of four hundred and twenty-four thousand four hundred and twenty-one oranges at one penny each.

4. £3876 19s. $8\frac{1}{4}$ + £12037 10s. $11\frac{3}{4}$d. + £207 16s. $2\frac{1}{2}$d. + £2069 3s. $8\frac{3}{4}$d. + £173 14s. $0\frac{1}{4}$d.

5. A woman went to market with two pounds fourteen shillings and sevenpence in her pocket, and sold a lot of geese for six pounds twelve shillings and eightpence; a lot of ducks for three pounds and fourpence; a lot of hens for six pounds eighteen shillings; how much money had she to return with?

H

1. Divide one million one hundred and ninety-one thousand four hundred and eighty-one by five hundred and sixty-seven.

2. How many apples can I buy for one shilling and sixpence, if one costs a halfpenny?

3. Find the amount of £1732 0s. $11\frac{1}{2}$d.; £837 12s. $1\frac{3}{4}$d.; £884 13s. $7\frac{3}{4}$d.; £435 15s. $9\frac{1}{2}$d.; and £756 6s. 1d.

4. Subtract forty-seven thousand seven hundred and twenty-nine pounds sixteen shillings and eightpence three farthings from one hundred and one thousand two hundred and seventy pounds one shilling and a penny three farthings.

5. If a lady bought a piano and stool for fourteen pounds nine shillings and tenpence, the stool cost four pounds three shillings and twopence; how much more did the piano cost than the stool?

I

1. Divide three million one hundred and thirty-four thousand seven hundred and four by five hundred and seven.

2. How many books could I buy for £36064 at half a sovereign each?

3. Find the sum of five thousand four hundred and twenty-six pounds eleven shillings and eightpence three farthings; eighty-two thousand one hundred and seven pounds seventeen shillings and fourpence three farthings; one thousand and

eighty-two pounds four shillings and sixpence three farthings; and eight hundred and seven thousand four hundred and eighty-seven pounds seventeen shillings and fivepence three farthings.

4. Find the difference between four pounds fifteen shillings and fivepence farthing and one hundred pounds.

5. If four horses are bought for four hundred and seventy pounds twelve shillings and sixpence, and sold again for four hundred and fifty-nine pounds fourteen shillings and sixpence, how much is lost by them?

J

1. Divide six hundred and fifty-seven thousand three hundred and seventy-six by fifty-eight.

2. Take seventeen thousand five hundred and thirty-seven pounds nineteen shillings and fourpence three farthings from thirty thousand and twenty-four pounds and one farthing.

3. How many herrings at one halfpenny each can be bought for £279 1s. 4d.?

4. What is the amount of £100602 3s. 7¼d.; £8706 14s. 8¾d.; £12 4s. 7d.; £20980 17s. 6½d.; and £16782 9s. 2½d.?

5. If a market woman sold her butter for £13 10s. 9d.; her eggs for £1 11s. 6d.; and her fowls for £14 9s. 10d.; and then paid £10 15s. 9¾d. to the grocer, and £3 11s. 10¼d. to other persons, how much money had she left?

K

1. Divide one million one hundred and eighty-eight thousand one hundred and seventy-six by five hundred and sixty.

2. How many halfpenny apples could I get for £67 11s. 1½d.?

3. From ten thousand pounds take five thousand three hundred and fifty-three pounds eleven shillings and fourpence halfpenny.

4. Add up ten pounds sixteen shillings and ninepence; five hundred and twenty-three pounds nineteen shillings and sevenpence; eighteen shillings and fourpence three farthings; two pounds seven shillings and fivepence farthing; and two pounds two shillings and threepence.

5. If a horse and cart cost one hundred and four pounds six shillings and fourpence halfpenny, the cart cost twenty pounds ten shillings, how much did the horse cost more than the cart?

L

1. Divide one million eight hundred and fifty-four thousand three hundred and ninety-two by five hundred and ninety-four.

2. Add together forty pounds eleven shillings and twopence halfpenny, three thousand and sixty-seven pounds three shillings and elevenpence, eight shillings and sixpence farthing, three hundred and nine pounds four shillings and three farthings one thousand and twenty-seven pounds and ninepence.

3. What is the price in £ s. d. of two hundred and fifty-nine thousand three hundred and six black leads at a halfpenny each?

4. Find the difference between forty-one pounds thirteen shillings and sevenpence halfpenny and one hundred guineas.

5. A grocer sells on Monday groceries worth £20 10s. 6d.; on Tuesday, groceries worth £19 4s. 7½d.; on Wednesday, £10 6s. 3d. worth; on Thursday, £19 19s. 7½d. worth; on Friday, £20 18s. 7½d. worth; and on Saturday, £33 13s. 10d. worth; how much short of £200 will he have taken during the week?

M

1. Divide four hundred and sixty-two thousand nine-hundred and eighty-three by eighty-nine.

2. How much more is seven thousand and one pounds three shillings and twopenee than three hundred and ninety-four pounds sixteen shillings and sixpence halfpenny?

3. If a length of cloth is 169 feet long, how many such lengths can be cut from four pieces, each piece being 33124 feet long?

4. Find the sum of nine shillings and fourpence halfpenny, one thousand eight hundred and two pounds sixteen shillings and sevenpence three farthings, eight hundred and sixty pounds three shillings and three farthings, seventy-eight pounds two shillings and sevenpence three farthings, and eighty thousand four hundred and ninety-eight pounds twelve shillings and elevenpence farthing.

5. If a top cost fourpence halfpenny, a whip twopence halfpenny, a pair of skates five shillings, a pair of gloves two shillings and sixpence, a necktie one shilling and sixpence halfpenny, what do the lot cost?

N

1. Divide twenty-six million ninety-four thousand seven hundred and eighty-six by three hundred and eighty-one.

2. Find the sum of £56847318 9s. 7½d., £8901 19s. 6½d., £157 18s. 7½d., £10215524 3s. 9¾d., £9182647 13s. 9½d., and £116227 19s. 5d.

3. How many fourpenny dolls can be bought for £1373 17s. 4d.?

4. From the sum of one hundred guineas and one hundred pounds take one hundred and seven pounds seventeen shillings and threepence three farthings.

5. A woman had in her purse four five-pound notes. She paid to the draper £5 6s. 7½d., to the bakers she paid £2 8s. 7d., to the butchers she paid £2 1s. 9½d., and the remainder at the grocers; how much did she pay at the grocers?

O

1. Divide two hundred thousand two hundred and forty-eight by fifty-nine.

2. Take thirteen thousand three hundred and sixty pounds sixteen shillings and eightpence halfpenny from fifty-seven thousand and one pounds one shilling and a halfpenny.

3. Find the number of candles, at four a penny, that can be bought for for £53 2s. 9¾d.

4. What is the amount of £743 9s. 6d., £8594 13s. 5½d., £78100 14s. 7d., £6457731 6s. 8¾d., £891 5s. 5d., and £4 17s. 6d.?

5. If 1319126 figs are packed in boxes holding 176 each, how many boxes will be completely filled, and how many will remain unpacked?

P

1. How many times is two hundred and seventy-six contained in sixteen million one hundred and seventy thousand eight hundred and forty.

2. Find the amount of £84691 14s. 6½d., £3175546 7s. 7¾d., £60 3s. 5½d., £91666 2s. 6½d., £3496849 5s. 7¾d., £282 7s. 3½d.

3. £110206 3s. 10½d. – £30395 17s. 10¾d.

4. How much would it cost to give 33931 hot dinners to poor children at 6d. each?

5. If a man had one pound in his purse and spent 2s. in tea, and the remainder in apples at fifty-one for a shilling, how many apples would he get?

THE

"TRY" ARITHMETIC.

PART IV.

[FIRST QUARTER.

COMPOUND MULTIPLICATION.—Ex. I.

A

	£	s.	d.	
1.	156	0	$8\frac{1}{3}$	× 2
2.	137	7	2	× 3
3.	127	10	$4\frac{1}{4}$	× 4
4.	122	8	4	× 5

B

	£	s.	d.	
1.	138	14	0	× 3
2.	130	0	$7\frac{1}{4}$	× 4
3.	77	5	$3\frac{1}{3}$	× 8
4.	142	16	5	× 5

C

1.	1	16	$8\frac{1}{3}$	× 3
2.	63	12	5	× 5
3.	60	0	4	× 7
4.	132	10	$10\frac{1}{4}$	× 4

D

1.	105	6	$0\frac{3}{4}$	× 3
2.	58	0	10	× 8
3.	43	15	3	× 12
4.	122	8	4	× 5

E

1.	446	18	$4\frac{1}{4}$	× 6
2.	63	12	5	× 5
3.	66	6	8	× 7
4.	4335	8	7	× 12

F

1.	1956	0	$8\frac{1}{3}$	× 2
2.	52	0	3	× 8
3.	6503	2	$10\frac{1}{2}$	× 8
4.	52	10	$3\frac{1}{2}$	× 12

G

1.	534	13	6	× 9
2.	59	11	0	× 10
3.	122	8	4	× 5
4.	1213	17	$6\frac{3}{4}$	× 6

H

1.	260	1	$2\frac{1}{2}$	× 2
2.	63	12	5	× 10
3.	9104	8	$0\frac{1}{4}$	× 8
4.	69	7	0	× 12

I

1.	76	10	$2\frac{1}{2}$	× 8
2.	187	6	$4\frac{1}{2}$	× 4
3.	103	0	$4\frac{2}{3}$	× 8
4.	1350	14	$11\frac{1}{4}$	× 7

J

1.	2	11	$4\frac{3}{4}$	× 3
2.	102	0	$3\frac{1}{2}$	× 8
3.	95	8	$7\frac{1}{2}$	× 10
4.	87	10	6	× 12

K

1.	141	7	7	× 6
2.	4773	1	$9\frac{3}{4}$	× 2
3.	127	10	$4\frac{1}{2}$	× 8
4.	280	10	$9\frac{3}{4}$	× 4

L

1.	309	1	2	× 3
2.	12753	15	6	× 8
3.	147	3	7	× 8
4.	306	0	$10\frac{1}{2}$	× 4

M

	£	s.	d.	
1.	127	10	$4\frac{1}{2}$	× 8
2.	96	5	$6\frac{1}{2}$	× 12
3.	13738	14	0	× 9
4.	265	4	9	× 5

N

	£	s.	d.	
1.	141	13	$0\frac{1}{2}$	× 8
2.	2081	0	$1\frac{1}{2}$	× 6
3.	338	1	$7\frac{1}{4}$	× 4
4.	178	10	$6\frac{1}{4}$	× 8

O

1.	1248	12	$0\frac{3}{4}$	× 10
2.	147	7	1	× 9
3.	147	0	10	× 10
4.	382	11	$1\frac{1}{4}$	× 4

P

1.	132	12	$4\frac{1}{2}$	× 10
2.	357	1	$0\frac{1}{2}$	× 4
3.	159	1	$0\frac{1}{2}$	× 10
4.	138	14	0	× 12

Q

1.	1415	9	8	× 10
2.	128	15	6	× 12
3.	206	0	$9\frac{1}{2}$	× 8
4.	218	18	4	× 8

R

1.	382	11	$1\frac{1}{4}$	× 4
2.	408	1	2	× 4
3.	433	11	$3\frac{1}{4}$	× 4
4.	229	10	8	× 8

S

1.	18318	5	4	× 9
2.	867	2	$6\frac{1}{2}$	× 2
3.	92	12	$3\frac{3}{4}$	× 2
4.	163	2	$3\frac{1}{2}$	× 12

T

1.	297	17	$9\frac{1}{2}$	× 9
2.	46	6	1	× 7
3.	34	13	6	× 12
4.	175	1	0	× 3

U

1.	1340	10	$0\frac{3}{4}$	× 2
2.	31	16	$2\frac{1}{2}$	× 10
3.	69	7	0	× 6
4.	66	18	0	× 8

V

1.	978	0	$4\frac{1}{4}$	× 4
2.	22	4	$2\frac{3}{4}$	× 2
3.	60	11	8	× 9
4.	61	4	2	× 10

W

1.	601	10	$2\frac{1}{4}$	× 8
2.	70	13	$4\frac{1}{2}$	× 8
3.	208	1	0	× 3
4.	75	12	$7\frac{1}{2}$	× 10

X

1.	48	15	9	× 12
2.	58	18	8	× 11
3.	14567	0	10	× 5
4.	214	1	7	× 4

Y

1.	90	0	6	× 7
2.	73	10	5	× 10
3.	2855	8	$2\frac{3}{4}$	× 3
4.	115	17	$11\frac{1}{4}$	× 8

Z

1.	142	16	5	× 5
2.	148	1	7	× 6
3.	3151	14	$10\frac{1}{4}$	× 3
4.	113	7	0	× 9

Test 1

1.	141	13	$0\frac{1}{2}$	× 8
2.	12	12	$0\frac{3}{4}$	× 10
3.	341	6	11	× 4
4.	47	9	$5\frac{1}{3}$	× 3

Test 2

1.	52	0	3	× 12
2.	182	0	$10\frac{1}{4}$	× 4
3.	92	9	4	× 9
4.	229	10	$7\frac{3}{4}$	× 4

COMPOUND MULTIPLICATION.—Ex. II.

A

	£	s.	d.	
1.	15	0	1	× 28
2.	736	12	0	× 72
3.	32	17	0	× 19
4.	14	13	10	× 51

B

	£	s.	d.	
1.	38	5	$1\frac{1}{2}$	× 16
2.	31	4	$4\frac{3}{4}$	× 24
3.	8	17	5	× 92
4.	12	15	$10\frac{3}{4}$	× 76

C

1.	51	0	$1\frac{3}{4}$	× 16
2.	38	12	$7\frac{3}{4}$	× 24
3.	1062	16	$3\frac{1}{2}$	× 96
4.	70	16	$6\frac{1}{4}$	× 16

D

1.	21	5	$0\frac{3}{4}$	× 48
2.	36	15	$10\frac{3}{4}$	× 32
3.	17	14	10	× 69
4.	20	1	7	× 68

E

1.	7	5	$1\frac{1}{4}$	× 32
2.	390	3	$9\frac{1}{2}$	× 80
3.	163	3	$4\frac{3}{4}$	× 26
4.	7	10	$0\frac{1}{2}$	× 68

F

1.		5	16 1	× 80
2.	1083	17	$1\frac{3}{4}$	× 48
3.		12	9 4	× 52
4.		22	0 9	× 34

G

1.	7	13	$0\frac{1}{4}$	× 80
2.	35	14	$1\frac{1}{4}$	× 20
3.	35	9	8	× 23
4.	51	3	7	× 19

H

1.		11	11 2	× 72
2.		15	18 $1\frac{1}{4}$	× 60
3.	3657	12	0	× 29
4.		48	2 $9\frac{1}{4}$	+ 24

I

1.	7	1	$8\frac{1}{4}$	× 144
2.	27	5	3	× 44
3.	51	0	$1\frac{3}{4}$	× 24
4.	40	3	2	× 34

J

1.	27	5	3	× 44
2.	13	6	$1\frac{1}{2}$	× 92
3.	36	16	$9\frac{1}{4}$	× 36
4.	91	18	$0\frac{1}{4}$	× 16

K

1.	35	14	$1\frac{1}{2}$	× 40
2.	21	9	3	× 72
3.	70	0	$4\frac{3}{4}$	× 24
4.	33	7	$0\frac{1}{4}$	× 52

L

1.	51	0	$1\frac{3}{4}$	× 32
2.	54	14	7	× 32
3.	33	2	$3\frac{1}{4}$	× 56
4.	23	6	$0\frac{1}{2}$	+ 84

M

1.	29	9	5	× 45
2.	18	7	$7\frac{1}{4}$	× 80
3.	19	9	0	× 81
4.	70	0	$4\frac{3}{4}$	× 24

N

1.	11	9	$1\frac{3}{4}$	× 234
2.	390	3	$9\frac{1}{4}$	× 80
3.	3	6	$3\frac{1}{4}$	× 128
4.	0	8	$1\frac{1}{4}$	× 1296

O

1.	20	1	$4\frac{3}{4}$	× 16
2.	7	8	$6\frac{1}{2}$	× 648
3.	1	4	$3\frac{3}{4}$	× 432
4.	1	17	8	× 325

P

1.	3	15	$0\frac{1}{4}$	× 112
2.	67	14	8	× 783
3.	1	17	8	× 325
4.	3	13	$5\frac{1}{2}$	× 204

Q

	£	s.	d.	
1.	1	12	5	× 324
2.	4	6	$8\frac{1}{4}$	× 144
3.	7	6	11	× 102
4.	1	8	$10\frac{3}{4}$	× 576

R

	£	s.	d.	
1.		3	15	$0\frac{1}{4}$ × 168
2.		3	13	$5\frac{1}{2}$ × 204
3.		5	15	7 × 144
4.	1575	18		$1\frac{1}{4}$ × 60

S

1.	1	16	$8\frac{3}{4}$	× 408
2.	1	8	$10\frac{2}{4}$	× 576
3.	450	4	$11\frac{3}{4}$	× 21
4.	7	7	$3\frac{1}{4}$	× 144

T

1.	4	8	$8\frac{1}{2}$	× 184
2.	31	16	$2\frac{1}{2}$	× 30
3.	7	7	$3\frac{1}{4}$	× 144
4.	2	5	$5\frac{1}{4}$	× 528

U

1.	14	15	$4\frac{3}{4}$	× 64
2.	1062	16	$3\frac{1}{2}$	× 96
3.	0	15	$1\frac{3}{4}$	× 1584
4.	10	16	$2\frac{1}{2}$	× 1155

V

1.	2	7	$2\frac{3}{4}$	× 432
2.	1	10	$3\frac{1}{2}$	× 792
3.	8	17	5	× 138
4.	36	16	$9\frac{1}{4}$	× 36

W

1.	9	1	9	× 132
2.	429	6	$8\frac{1}{4}$	× 288
3.	85	6	$8\frac{3}{4}$	× 16
4.	18	7	$7\frac{1}{4}$	× 80

X

1.	4	8	$8\frac{1}{2}$	× 276
2.	5	0	$4\frac{3}{4}$	× 272
3.	92	15	$7\frac{1}{4}$	× 16
4.	0	4	$2\frac{1}{2}$	× 7344

Y

1.	7	7	$4\frac{1}{4}$	× 180
2.	3	13	$6\frac{1}{4}$	× 400
3.	1	4	$3\frac{3}{4}$	× 1296
4.	143	2	$2\frac{3}{4}$	× 1152

Z

1.	35	14	$1\frac{1}{4}$	× 40
2.	2	8	$7\frac{1}{2}$	× 648
3.	286	4	$5\frac{1}{2}$	× 576
4.	0	5	$4\frac{1}{4}$	× 666

Test (1).

1.	3	11	$6\frac{3}{4}$	× 432
2.	429	6	$8\frac{1}{4}$	× 384
3.	1	12	$1\frac{1}{2}$	× 111
4.	1	6	1	× 1408

Test (2).

1.	2	4	$4\frac{1}{4}$	× 736
2.	2	14	$8\frac{3}{4}$	× 640
3.	14	6	11	× 128
4.	11	13	$0\frac{1}{4}$	× 168

COMPOUND DIVISION.—Ex. I.

A

	£	s.	d.	
1.	714	12	0	÷ 3
2.	1417	2	4	÷ 4
3.	2361	17	6	÷ 5
4.	3542	16	6	÷ 6

B

	£	s.	d.	
1.	1405	1	4	÷ 4
2.	2341	15	10	÷ 5
3.	3512	14	0	÷ 6
4.	42717	14	8	÷ 7

C

	£	s.	d.	
1.	3957	8	4	÷5
2.	5330	17	0	÷6
3.	6933	8	3	÷7
4.	8724	0	0	÷8

D

	£	s.	d.	
1.	7130	18	6	÷6
2.	8991	6	6	÷7
3.	1099	10	2	÷8
4.	13360	7	0	÷9

E

1.	14179	1	0	÷9
2.	13186	10	8	÷8
3.	15915	15	9	÷9
4.	18362	13	4	÷10

F

1.	275	7	6	÷8
2.	417	17	$7\frac{1}{2}$	÷9
3.	5754	0	0	÷10
4.	762	15	$7\frac{1}{2}$	÷11

G

1.	7923	18	0	÷9
2.	971	6	$10\frac{1}{2}$	÷10
3.	11884	19	0	÷11
4.	14129	4	0	÷12

H

1.	252	1	3	÷2
2.	4096	3	0	÷3
3.	11763	6	8	÷8
4.	14043	6	9	÷9

I

1.	4896	14	0	÷3
2.	7005	6	8	÷4
3.	1296	12	$4\frac{1}{2}$	÷7
4.	15506	4	8	÷8

K

1.	331	13	$1\frac{1}{2}$	÷5
2.	469	8	$7\frac{1}{2}$	÷6
3.	6106	16	0	÷7
4.	1142	14	9	÷12

L

1.	6362	2	0	÷6
2.	784	16	$2\frac{1}{2}$	÷7
3.	112374	5	$7\frac{1}{2}$	÷9
4.	1468	4	$0\frac{1}{2}$	÷11

M

1.	996	18	$7\frac{1}{2}$	÷7
2.	12362	8	0	÷8
3.	14834	17	0	÷9
4.	1732	4	$4\frac{1}{2}$	÷10

N

1.	1099	10	2	÷8
2.	12980	9	6	÷9
3.	15603	14	2	÷10
4.	20165	14	0	÷12

O

1.	20547	2	$7\frac{1}{2}$	÷9
2.	32730	3	$1\frac{1}{2}$	÷10
3.	46666	11	$2\frac{1}{2}$	÷11
4.	5610	15	7	÷11

P

1.	187295	9	$1\frac{1}{2}$	÷6
2.	291340	16	4	÷7
3.	312150	18	0	÷6
4.	556417	7	0	÷9

Q

1.	53	19	$3\frac{3}{4}$	÷7
2.	65297	14	4	÷8
3.	85097	1	$0\frac{3}{4}$	÷9
4.	612181	4	0	÷6

R

1.	17777	13	10	÷4
2.	2801	12	1	÷5
3.	44123	4	$7\frac{1}{2}$	÷7
4.	87399	4	6	÷12

S

	£	s.	d.	
1.	28911	8	$0\frac{2}{4}$	÷3
2.	7281	15	0	÷7
3.	13195	1	0	÷11
4.	96960	10	4	÷8

T

	£	s.	d.	
1.	13817	13	9	÷4
2.	23232	3	$1\frac{1}{2}$	÷5
3.	448522	16	0	÷8
4.	59456	19	$7\frac{1}{3}$	÷9

U

1.	1050	5	10	÷5
2.	23	9	$1\frac{1}{2}$	÷6
3.	32525	0	$2\frac{1}{2}$	÷7
4.	4683	12	0	÷8

V

1.	3422	4	6	÷6
2.	4369	1	0	÷7
3.	57008	10	6	÷8
4.	7489	16	0	÷9

W

1.	54447	13	$4\frac{2}{4}$	÷7
2.	65297	14	4	÷8
3.	82058	12	6	÷9
4.	101407	10	0	÷10

X

1.	538227	6	8	÷8
2.	65549	8	$4\frac{1}{2}$	÷9
3.	8102	9	7	÷10
4.	100584	16	$3\frac{1}{4}$	÷11

Y

1.	425487	12	0	÷9
2.	5754	0	0	÷10
3.	67194	4	8	÷11
4.	85435	13	0	÷12

Z

1.	499441	8	0	÷6
2.	63760	1	1	÷7
3.	80965	4	0	÷8
4.	100089	11	$7\frac{1}{3}$	÷9

Test 1.

1.	1748	18	0	÷6
2.	6219	6	6	÷7
3.	7851	12	0	÷8
4.	9181	7	0	÷9

Test 2.

1.	1134	5	$7\frac{1}{3}$	÷9
2.	934	6	$2\frac{2}{3}$	÷7
3.	1566	12	$1\frac{1}{2}$	÷11
4.	12482	19	4	÷8

COMPOUND LONG DIVISION.—Ex. II.

A

	£	s.	d.	
1.	6051	8	$9\frac{1}{3}$	÷27
2.	3281	1	3	÷90
3.	1314	17	$0\frac{1}{2}$	÷31
4.	16540	15	1	÷29

B

	£	s.	d.	
1.	16960	8	4	÷25
2.	3508	13	$3\frac{1}{2}$	÷49
3.	83130	19	0	÷98
4.	3713	17	$11\frac{1}{4}$	÷39

C

1.	13863	18	$6\frac{1}{2}$	÷33
2.	33619	5	0	÷60
3.	17481	19	4	÷26
4.	26991	6	5	÷38

D

1.	22412	16	8	÷40
2.	5318	15	6	÷84
3.	685	7	$3\frac{3}{4}$	÷97
4.	7974	17	$1\frac{1}{2}$	÷97

E

	£	s.	d.	
1.	16689	3	0	÷27
2.	277	11	4	÷36
3.	83130	19	0	÷98
4.	9422	2	$6\frac{3}{4}$	÷97

F

	£	s.	d.	
1.	69650	10	8	÷88
2.	567	18	$11\frac{1}{2}$	÷66
3.	464998	17	6	÷51
4.	48419	8	0	÷47

G

1.	43535	5	6	÷49
2.	464998	17	6	÷51
3.	232312	13	0	÷23
4.	866	13	$11\frac{1}{4}$	÷78

H

1.	383	4	$8\frac{1}{2}$	÷40
2.	25930	16	0	÷24
3.	851	3	7	÷73
4.	11216	17	$4\frac{1}{2}$	÷89

I

1.	29172	3	0	÷27
2.	409	0	$3\frac{3}{4}$	÷36
3.	230063	8	0	÷19
4.	12546	9	1	÷94

J

1.	356246	16	0	÷32
2.	424	3	$11\frac{3}{4}$	÷35
3.	12546	9	1	÷94
4.	6551	5	3	÷46

K

1.	37087	0	0	÷30
2.	89253	3	6	÷66
3.	9826	19	$0\frac{1}{2}$	÷69
4.	116296	15	8	÷76

L

1.	4671	11	$0\frac{1}{2}$	÷35
2.	124696	12	0	÷84
3.	116296	15	8	÷76
4.	142004	6	0	÷87

M

1.	142510	8	0	÷96
2.	154476	14	3	÷99
3.	9144	15	9	÷54
4.	5158	14	6	÷30

N

1.	102984	9	6	÷66
2.	9144	15	9	÷54
3.	6409	4	$2\frac{1}{4}$	÷37
4.	1726331	16	$7\frac{1}{2}$	÷94

O

1.	10668	18	$4\frac{1}{2}$	÷63
2.	5158	14	6	÷30
3.	863165	17	$4\frac{1}{2}$	÷47
4.	174206	7	6	÷89

P

1.	1425	6	3	÷50
2.	20298	4	2	÷55
3.	180	13	$1\frac{1}{2}$	÷41
4.	29659	5	8	÷52

Q

1.	142085	15	8	÷268
2.	6249589	7	3	÷946
3.	69410	9	$1\frac{1}{2}$	÷9003
4.	599395	4	$10\frac{1}{4}$	÷70369

R

1.	3893	6	8	÷160
2.	46455	6	0	÷142
3.	41673849	17	$7\frac{1}{2}$	÷8969
4.	1351208	10	1	÷2369

S

1.	284171	12	2	÷536
2.	3124794	13	$7\frac{1}{2}$	÷473
3.	5014703	8	$3\frac{3}{4}$	÷7060
4.	118696	5	$2\frac{1}{2}$	÷14703

T

1.	165865	1	0	÷169
2.	8221847	14	0	÷814
3.	2092733	19	$7\frac{1}{2}$	÷1881
4.	15559413447	10	$1\frac{1}{2}$	÷123456789

U

	£	s.	d.	
1.	3439809	11	$3\frac{3}{4}$	÷309
2.	22433	13	0	÷178
3.	4717	5	$4\frac{1}{2}$	÷7000
4.	11286526	15	8	÷7603

V

	£	s.	d.	
1.	132319	16	0	÷106
2.	54323	9	$6\frac{1}{2}$	÷407
3.	890690	0	0	÷600
4.	94527000	0	0	÷60000

W

1.	34121	2	3	÷42
2.	4616	14	0	÷48
3.	54590	8	0	÷51
4.	88390	18	0	÷78

X

1.	47334	15	4	÷29
2.	12818	9	$9\frac{1}{2}$	÷74
3.	783713	8	$4\frac{1}{2}$	÷4231
4.	174206	7	6	÷89

Y

1.	246467	4	8	÷151
2.	73272	18	$5\frac{3}{4}$	÷423
3.	783713	8	$4\frac{1}{2}$	÷4231
4.	7123200	17	8	÷3604

Z

1.	170080	8	5	÷109
2.	880778	12	$11\frac{1}{2}$	÷5201
3.	705879	4	$2\frac{3}{4}$	÷4075
4.	1567426	18	$7\frac{1}{2}$	÷8462

TEST 1.

1.	20650	15	$6\frac{1}{2}$	÷145
2.	226472	13	8	÷148
3.	415077	6	6	÷247
4.	1411758	7	$0\frac{1}{2}$	÷8150

TEST 2.

1.	132319	16	0	÷106
2.	1485509	0	$8\frac{1}{4}$	÷112
3.	890690	0	0	÷600
4.	94527000	0	0	÷60000

COMPOUND MULTIPLICATION.—No III.

A

	£	s.	d.	
1.	210	12	$1\frac{1}{2}$	$\times 1\frac{1}{2}$
2.	1069	7	0	$\times 4\frac{1}{2}$
3.	22	10	$0\frac{3}{4}$	$\times 22\frac{2}{3}$
4.	87	5	4	$\times 7\frac{3}{7}$

B

	£	s.	d.	
1.	235	14	8	$\times 2\frac{3}{4}$
2.	88	3	0	$\times 8\frac{1}{2}$
3.	70	19	4	$\times 11\frac{1}{2}$
4.	174	19	$1\frac{3}{4}$	$\times 5\frac{5}{11}$

C

1.	127	4	10	$\times 2\frac{1}{2}$
2.	63	16	11	$\times 7\frac{3}{11}$
3.	5419	5	$8\frac{3}{4}$	$\times 9\frac{3}{5}$
4.	145	7	$4\frac{3}{4}$	$\times 4\frac{4}{19}$

D

1.	174	2	6	$\times 2\frac{2}{3}$
2.	45	0	$1\frac{1}{2}$	$\times 11\frac{1}{3}$
3.	176	16	0	$\times 3\frac{2}{3}$
4.	176	6	0	$\times 4\frac{1}{4}$

E

1.	92	12	2	$\times 3\frac{1}{2}$
2.	265	6	8	$\times 1\frac{3}{4}$
3.	52	10	$1\frac{3}{4}$	$\times 9\frac{5}{7}$
4.	344	5	$11\frac{1}{4}$	$\times 1\frac{7}{9}$

F

1.	218	2	0	$\times 5\frac{1}{2}$
2.	266	2	6	$\times 4\frac{3}{5}$
3.	361	8	6	$\times 3\frac{7}{9}$
4.	1071	3	$1\frac{1}{2}$	$\times 1\frac{1}{3}$

G

1.	300	9	6	$\times 5\frac{1}{7}$
2.	490	2	$9\frac{1}{4}$	$\times 3\frac{3}{7}$
3.	166	15	$1\frac{1}{4}$	$\times 10\frac{2}{5}$
4.	20	0	6	$\times 9\frac{1}{4}$

H

1.	73	9	2	$\times 10\frac{1}{5}$
2.	141	18	8	$\times 5\frac{3}{4}$
3.	204	14	4	$\times 4\frac{3}{4}$
4.	14630	8	0	$\times 7\frac{1}{4}$

COMPOUND DIVISION.—No. III.

I

	£	s.	d.	
1.	106371	18	0	÷ $2\frac{1}{4}$
2.	1438	10	0	÷ $2\frac{1}{3}$
3.	1456	7	0	÷ $2\frac{2}{3}$
4.	17087	2	0	÷ $2\frac{2}{5}$

J

	£	s.	d.	
1.	278208	13	6	÷ $4\frac{1}{2}$
2.	1978	14	2	÷ $2\frac{1}{2}$
3.	11123	2	0	÷ $12\frac{3}{4}$
4.	13521	6	$0\frac{1}{2}$	÷ $14\frac{7}{12}$

K

1.	36	2	$7\frac{1}{2}$	÷ $8\frac{1}{5}$
2.	998	2	$11\frac{3}{4}$	÷ $1\frac{3}{4}$
3.	7353	17	$5\frac{1}{4}$	÷ $1\frac{1}{6}$
4.	6747	16	$7\frac{1}{4}$	÷ $9\frac{1}{2}$

L

1.	17	19	$9\frac{1}{4}$	÷ $2\frac{1}{3}$
2.	7255	17	7	÷ $8\frac{1}{6}$
3.	1046	18	$0\frac{3}{4}$	÷ $10\frac{7}{9}$
4.	58078	3	3	÷ $5\frac{3}{4}$

M

1.	4002	5	10	÷ $7\frac{1}{7}$
2.	2120	1	$0\frac{1}{2}$	÷ $3\frac{1}{8}$
3.	13752	0	$5\frac{1}{2}$	÷ $17\frac{3}{8}$
4.	990	9	9	÷ $1\frac{1}{8}$

N

1.	360	10	$5\frac{3}{4}$	÷ $8\frac{1}{2}$
2.	48631	5	$11\frac{1}{3}$	÷ $93\frac{1}{3}$
3.	6379	8	6	÷ $9\frac{3}{4}$
4.	6747	16	$7\frac{1}{4}$	÷ $9\frac{1}{2}$

O

1.	2025	12	$4\frac{3}{4}$	÷ $2\frac{1}{2}$
2.	92999	15	6	÷ $10\frac{1}{5}$
3.	3961	13	0	÷ $3\frac{2}{3}$
4.	1649	7	$7\frac{1}{2}$	÷ $1\frac{3}{8}$

P

1.	5514	1	6	÷ $3\frac{1}{2}$
2.	11833	13	10	÷ $7\frac{1}{4}$
3.	712	2	$8\frac{1}{4}$	÷ $4\frac{1}{9}$
4.	391856	14	$2\frac{1}{4}$	÷ $2115\frac{1}{2}$

Division of Money by Money.

Q

	£	s.	d.	£	s.	d.
1.	4491	16	6 ÷	7	6	$9\frac{1}{2}$
2.	6597	17	0 ÷	8	8	$3\frac{3}{4}$
3.	26163	4	0 ÷	29	4	0
4.	87582	3	9 ÷	94	9	7

R

	£	s.	d.	£	s.	d.
1.	1282	0	$4\frac{1}{2}$ ÷	5	4	$2\frac{3}{4}$
2.	795	13	$1\frac{1}{3}$ ÷	2	3	$1\frac{1}{2}$
3.	18	14	0 ÷	0	7	$9\frac{1}{2}$
4.	159	7	$8\frac{1}{3}$ ÷	0	5	$11\frac{1}{2}$

S

1.	10033	5	$1\frac{1}{2}$ ÷	31	5	$1\frac{1}{3}$
2.	18201	6	0 ÷	43	15	$0\frac{3}{4}$
3.	3897	14	2 ÷	7	7	1
4.	517	11	6 ÷	0	16	9

T

1.	6010	11	$8\frac{3}{4}$ ÷	8	6	$8\frac{3}{4}$
2.	611	17	4 ÷	0	14	$8\frac{1}{2}$
3.	3383	5	0 ÷	3	12	$3\frac{1}{2}$
4.	2210	0	0 ÷	2	3	4

U

1.	1249	13	5 ÷	2	18	$4\frac{3}{4}$
2.	1684	18	$5\frac{1}{4}$ ÷	3	4	$2\frac{1}{4}$
3.	49508	16	$7\frac{1}{2}$ ÷	73	0	$5\frac{1}{4}$
4.	5015	8	$8\frac{1}{4}$ ÷	6	6	$9\frac{3}{4}$

V

1.	2366	15	$7\frac{1}{2}$ ÷	7	8	$10\frac{1}{4}$
2.	454	18	4 ÷	1	2	1
3.	982	14	2 ÷	1	17	1
4.	20929	14	6 ÷	32	5	$11\frac{3}{4}$

W **Division of Money by Money.** **X**

	£	s.	d.		£	s.	d.		£	s.	d.		£	s.	d.
1.	158	7	$7\frac{3}{4}$	÷	0	4	$2\frac{3}{4}$	1.	513	16	6	÷	0	8	$4\frac{3}{4}$
2.	351	18	0	÷	0	8	$1\frac{1}{4}$	2.	9675	13	$1\frac{1}{2}$	÷	7	5	$11\frac{1}{4}$
3.	1195	11	$10\frac{1}{2}$	÷	1	4	$4\frac{1}{2}$	3.	898	9	0	÷	0	12	7
4.	75212	10	$7\frac{1}{2}$	÷	73	0	$5\frac{1}{4}$	4.	1596	18	9	÷	1	0	$10\frac{1}{2}$

Y **Z**

1.	4944	9	$1\frac{1}{2}$	÷	7	5	$10\frac{1}{4}$	1.	114	15	$3\frac{3}{4}$	÷ $5\frac{1}{2}$
2.	2307	1	8	÷	2	18	4	2.	1978	14	2	÷ $2\frac{2}{3}$
3.	628	2	8	÷	0	14	$0\frac{1}{4}$	3.	1872	9	0	÷ $2\frac{1}{4}$
4.	21895	10	$11\frac{1}{4}$	÷	23	12	$4\frac{3}{4}$	4.	13521	6	$0\frac{1}{2}$	÷ $14\frac{7}{12}$

MISCELLANEOUS.

Test 1 **Test 2**

1.	18201	6	0	÷	43	15	$0\frac{3}{4}$	1.	6379	8	6	÷	$9\frac{3}{4}$
2.	2707	14	$1\frac{1}{2}$	÷			$4\frac{5}{8}$	2.	132	4	6	×	$5\frac{2}{3}$
3.	114	15	$3\frac{3}{4}$	×			$5\frac{1}{3}$	3.	124	3	10	×	$6\frac{4}{7}$
4.	6597	17	0	÷	8	8	$3\frac{3}{4}$	4.	1195	11	$10\frac{1}{2}$	÷ 1	4 $4\frac{1}{2}$

REDUCTION.—EX. I.

A **Money.** **B**

Reduce—

1. £67 11s. $1\frac{1}{2}$d. to halfpence.
2. £44 3s. 11d. to farthings.
3. £26265 to half-sovereigns.
4. £1530 9s. to sixpences.

Reduce—

1. £262 13s. to pence.
2. £7212 16s. to florins.
3. £1373 17s. 4d. to fourpences.
4. £1159 4s. to threepences.

C **D**

Reduce—

1. £1181 18s. 6d. to threepences.
2. £867 1s. 8d. to twopences.
3. £28336 to crowns.
4. 117760 guineas to pounds.

Reduce—

1. 66666 shillings to £ s. d.
2. 104688 pence to £ s. d.
3. 259306 halfpence to £ s. d.
4. 616544 farthings to £ s. d.

E **Avoirdupois Weight.** **F**

Reduce—

1. 14 tons 6cwt. 3qrs. 8lbs. to lbs.
2. 18 tons 18cwt. 3qrs. 8lbs. to lbs.
3. 23 tons 9cwt. 2lbs. to lbs.
4. 27 tons 12cwt. to lbs.

Bring—

1. 199 tons 5cwt. 2qrs. 7lbs. to ounces.
2. 2 tons 5cwt. 2qrs. 5lbs. 8oz. to ounces.
3. 2qrs. 11lb. 6oz. to ounces.
4. 5cwt. 2qrs. 16lbs. 8oz. to ounces

G Avoirdupois Weight. H

How many— Find the number of—

1. Drams in 5 tons 13cwt. 10lbs. 14oz. 10drs.?
2. Drams in 1cwt. 1qr. 27lbs. 3oz.
3. Drams in 1cwt. 3qrs. 15lbs. 1oz. 13drs.?
4. Drams in 2lbs. 8oz. 8drs.?

1. Tons, &c., in 5630lbs.
2. Tons, &c., in 1791015 drams.
3. Tons, &c., in 156918 ounces.
4. Tons, &c., in 12353lbs.

I Long Measure. J

Reduce— Express in—

1. 2023yds. 0ft. 7in. to inches.
2. 420 poles 2yds. 8in. to inches.
3. 11fur. 28po. 2yds. to inches.
4. 1 mile 4fur. 35po. 1½yd. 6in. to inches.

1. Leagues, &c., 46671 feet.
2. Miles, &c., 59619 yards.
3. Furlongs, &c., 1037½ yards.
4. Yards, &c., 209 inches.

K L

Bring— How many—

1. 1 mile 2fur. 24po. 2yds. 2ft. to inches.
2. 5 leagues 2 miles 3fur. 5po. 1½yd. to feet.
3. 183067½yds. to miles.
4. 246859½yds. to furlongs.

1. Miles, &c., 4362pls.
2. Inches in 2m. 2fur. 8po. 3yds. 4in.?
3. Leagues, &c., in 150045 poles?
4. Inches in 86lea. 2m. 1fur. 24p. 5yds. 2ft. 4in.?

M Cubic Measure. N

Reduce— Bring—

1. 136c. yds. 11c. ft. 24c. in. to cubic inches.
2. 15611c. yds. 4c. ft. 521c. in. to cubic inches.
3. 50c. ft. 72c. in. to c. inches.
4. 2c. yds. 333c. in. to c. inches.

1. 445383432c. in. to cubic yds.
2. 485455740c. in. to cubic yds.
3. 193769c. in. to cubic feet.
4. 211252c. in. to cubic feet.

O Square Measure. P

Reduce— Bring—

1. 2 perches 13½yds. 3ft. 36in. to inches.
2. 2 acres 1 rood 29per. 17¾yds. 5ft. to feet.
3. 3sq. miles 513ac. 2rs. 25per. 2¾yds. to yards.
4. 1 acre 3r. 32per. 9yds. 2ft. 48in. to inches.

1. 791469sq. yards to acres.
2. 536103999½yds. to sq. miles
3. 205870sq. feet to roods.
4. 124205836 inches to acres.

Q **Square Measure.** **R**

Reduce—

1. 32sq. miles 355acs. 0rd. 39 perches to perches.
2. 220377¼yds. to acres.
3. 73947 inches to sq. yards.
4. 154ac. 1r. 32per. 4yds. 6ft. to feet.

Find—

1. The number of inches in 54 acres 0r. 17per. 26¾yds. 5ft. 132 inches.
2. The number of inches of sq. miles in 1288700969sq. yards.
3. The number of feet in 1a. 27per. 11¼yds. 3ft.
4. The number of perches in 24016468 inches.

S **Time Measure.** **T**

Reduce—

1. 6 hours 10 minutes 24 sec. to seconds.
2. 3 weeks 3 days 4hrs. 51m. to minutes.
3. 69 months 4 days 4 hours to hours.
4. 2 months 1 week 3days 1hr. 26m. 20sec. to seconds.

Bring—

1. 393755403 minutes to centuries.
2. 26241422936 sec. to years (365 days = 1 year).
3. 24120354 seconds to months.
4. 937840 seconds to days.

U **V**

How many—

1. Days in 5467368 seconds.
2. Seconds in 22yrs. 236 days 8hrs. 27min. 15sec.
3. Days in 750272 seconds.
4. Minutes in 17yrs. 171 days 21hrs. 36 minutes.

Find the number of—

1. Hours in 13ys. 356day, 12hrs.
2. Years in 410164792 seconds.
3. Seconds in 5mo. 3wks. 4 days 7hrs. 50m. 56 seconds.
4. Years in 7927445 minutes.

W **Dry Measure.** **X**

Reduce—

1. 30 loads 4qrs. 5bus. 1pk. 1gal. 3qts. to pints.
2. 3500qrs. 3bus. 1 peck to qts.
3. 38lds. 1qr. 6bus. 1gal. 3qts. to pints.
4. 398bus. 2pks. 1qt. 1pt. 2 gills to gills.

Bring—

1. 1830 gills to pecks.
2. 523695 pecks to loads.
3. 13710 pecks to quarters.
4. 32748 gallons to lasts.

Y **Dry Measure.** Z

Express— How many—

1. 550 quarts in quarters, &c.
2. 1314 loads 1 bush. 2 pecks 3qts. in pints
3. 1542 pecks in quarters
4. 3985 loads 2qrs. 6bush. 2 pecks in quarts.

1. Loads in 20190 pecks.
2. Gallons in 414 loads 2qrs. 3bus. 3p. 1gal.
3. bushels in 47950 quarts.
4. Pints in 30483qrs. 4bus. 2 pecks 3 quarts.

REDUCTION.—Ex. II.

A **Troy Weight.** B

Reduce— Reduce—

1. 20lb. 3oz. 1dwt. 13grs. to grains.
2. 525lb. 3oz. 12dwt. to pennyweights.
3. 785936 grains to lbs.
4. 692286 grains to ounces.

1. 166382 grains to lbs.
2. 552lb. 5oz. 8dwt. 12grs. to to grains.
3. 27184 grains to lbs.
4. 218871b. 7oz. 15dwt. to dwts.

C **Apothecaries' Weight.** D

Reduce— Bring—

1. 2374000 grains to lbs.
2. 15396 scruples to lbs.
3. 11lb. 6oz. 7dwt. 12grs. to grains.
4. 272lb. 6oz. 3dwt. 2scrup. to scruples.

1. 618lb. 8oz. 7drs. 2grs. to grains.
2. 23666 grains to lbs.
3. 184lb. 1oz. 6drs. 1scrup. to scruples.
4. 35188 grains to lbs.

E **Cloth Measure.** F

Reduce— Bring—

1. 78558½ inches to yards.
2. 147292½ inches to English ells.
3. 1257 yards 1 nail 1¾ inches to inches.
4. 1245 English ells 4 quarters 1 nail 1¾ inches to inches.

1. 1767 yards 3 quarters 1 nail ¾ inch to inches.
2. 255793¼ inches to yards.
3. 1831 English ells 4 quarters 1 inch to inches.
4. 2550 yards 3 quarters to inches.

G **Wine Measure.** H

Reduce— Bring—

1. 65hogs. 49gals. 3qts. 1pt. 3 gills to gills.
2. 106 tierces 11gals. 3qts. 2 gills to gills.
3. 232puns. 21gals. 1qt. 1pt. to pints.
4. 1334 pipes 12gals. to gallons

1. 4070 gills to hogsheads.
2. 105989 pints to tierces.
3. 276996 pints to puncheons.
4. 1401 gallons to tuns.

Ale and Beer Measure.

Reduce—

1. 1012 pints to hogsheads.
2. 1013 pints to barrels.
3. 139 butts 26gals. to gills.
4. 184brls. 5gals. 1qt. 1pt. to pints.

Express—

1. 259hogs. 43gals. 1pt. to pints.
2. 45390 quarts in firkins.
3. 289246 quarts in hogsheads.
4. 771338 gallons to hogsheads.

K Miscellaneous. L

Reduce—

1. 262 tons 13cwt. to quarters.
2. 393 tons 19cwt. 2qrs. to qrs.
3. 218200 shillings to crowns.
4. 1615 drams to lbs. (avoir.)

Bring—

1. £35 13s. 5¼d. to farthings.
2. 31766 drams to quarters.
3. 73947sq. in. to square yards.
4. 158244 drams to lbs. (avoir.)

M N

Reduce—

1. £122 1s. 3d. to halfpence.
2. 154a. 1r. 32p. 4yds. 6ft. to ft.
3. 22yrs. 236dys. 8hrs. 27min. 5sec. to seconds.
4. 3500qrs. 3bush. 1 peck to quarts.

Bring—

1. £2121 8s. to fourpences.
2. 238078 yards to miles.
3. 417858 drams to cwts.
4. 7927445 minutes to years.

O P

Reduce—

1. 46213 sixpences to pounds.
2. 525lbs. 3oz. 12dwts. to dwts.
3. 388665 drams to cwts.
4. 2m. 2fur. 8po. 3yds. 4in. to inches.

Reduce—

1. 5467368 seconds to days.
2. 272lbs. 6oz. 3drs. 2 scruples to scruples.
3. £1040 10s. to threepences.
4. 2per. 13½yds. 3ft. 36in. to in.

Q Miscellaneous. R

Reduce—

1. 1793 half-crowns to £ s. d.
2. 59619yds. to miles (long).
3. 1288700969sq. yds. to sq. miles.
4. 2415oz. to quarters (avoir.)

Reduce—

1. 7401 farthings to pounds.
2. 2 tons 5cwt. 2qrs. 5lbs. 8oz. to ounces.
3. 5lea. 2m. 3fur. 5po. 1½yds. to feet.
4. 2a. 1r. 29per. 17¾yds. 5ft. to ft.

S

Reduce—

1. 2075851¾yds. to acres.
2. 259306 halfpence to pounds.
3. 111bs. 6oz. 7drs. 0scru. 12grs. to grains.
4. 30lo. 4qrs. 5bus. 1pk. 1gal. 3qts. to pints.

T

Reduce—

1. £1373 17s. 4d. to fourpences.
2. 17yrs. 171dys. 21h. 36min. to minutes.
3. 485455740c. in. to cubic yds.
4. 107631 farthings to £ s. d.

U

Reduce—

1. 158244 drams to lbs. (avoir.)
2. 199 tons 5cwt. 2qrs. 7lbs. to lbs.
3. 420po. 2yds. 8in. to in. (long).
4. 56716 fourpences to £ s. d.

V

Reduce—

1. 117760 guineas to sovereigns.
2. 238078yds. to miles.
3. 106 tierces 11gal. 3qts. 2 gills to gills.
4. 1764lbs. to cwts.

W

Reduce—

1. 3sq. miles 513a. 2r. 25per. 2¾yds. to square yards.
2. £1530 9s. to threepences.
3. 65hog. 49gal. 3qts. 1pt. 3gls. to gills (wine).
4. 5 months 3wks. 4dys. 7hrs. 50m. 56sec. to seconds.

X

Reduce—

1. 14 tons 4cwt. 13lbs. to lbs.
2. 200896¼ yards to acres.
3. 12353lbs. to tons.
4. 136c. yds. 11c. ft. 24c. in. to inches.

EXAMINATIONS.

[SECOND QUARTER.

A

1. Multiply £11 9s. 1¾d. by 234
2. Multiply £20 1s. 4¾d. by 16
3. Divide £3700 10s. 2d. by 77
4. Divide £1351208 10s. 1d. by 2369
5. Reduce 154acs. 1ro. 32per. 4yds. 6ft. to feet
6. Reduce 393755403 minutes to centuries

B

1. Multiply £390 3s. 9½d. by 80
2. Multiply £7 8s. 6¼d. by 648
3. Divide £16540 15s. 1d. by 29
4. Divide £2634787 4s. 9d. by 418
5. Reduce 199 tons 5cwt. 2qrs. 7lbs. 0oz. to ounces
6. Reduce 26241422936secs. to years

C

1. Multiply £3 15s. 0¼d. by 112
2. Multiply £4 4s. 8d. by 12528
3. Divide £17481 19s. 4d. by 26
4. Divide £12248 0s. 10d. by 172
5. Reduce 2 tons 5cwt. 2qrs. 5lbs. 8oz. to ounces
6. Reduce 24120354 seconds to months, weeks, &c.

D

1. Multiply £6 9s. 8d. by 81
2. Multiply £1 8s. 10¾d. by 432
3. Divide £26991 6s. 5d. by 38
4. Divide £18022 6s. 7½d. by 209
5. Bring 1m. 3fur. 28po. 2yds. to inches.
6. Bring 485455740 cubic in. to cubic yards.

E

1. Multiply £20 1s. 4¾d. by 16
2. Multiply £22 5s. 6¾d. by 216
3. Divide £21661 13s. by 37
4. Divide £472785 13s. 9d. by 6818
5. Bring 272lbs. 6oz. 3drs. 2scru. to scruples
6. Bring 251456 drams to cwts.

F

1. Multiply £8 13s. 4½d. by 48
2. Multiply £3 16s. 8¾d. by 13824
3. Divide £16960 8s. 4d. by 25
4. Divide £5014703 8s. 3¾d. by 7060
5. Reduce 1m. 2fur. 20po. 2yds. 8in. to inches
6. Reduce 445383432 cubic in. to cubic yards

G

1. Multiply £7 10s. 0½d. by 68
2. Multiply £1 17s. 8d. by 325
3. Divide £277 11s. 4d. by 36
4. Divide £258693 16s. 8d. by 3000
5. Bring 5lea. 2n. 3fur. 5po. 1½yds. to feet
6. Bring 937840secs. to days

H

1. Multiply £8 1s. 7d. by 78
2. Multiply £3 13s. 6¼d. by 200
3. Divide £5432 11s. 4½d. by 63
4. Divide £3991 6s. 10½d. by 8240
5. Reduce 5cwt. 2qrs. 16lb. 8oz. to ounces
6. Reduce 246859½yds. to furs.

I

1. Multiply £1062 16s. 3½d. by 96
2. Multiply 15s. 1¾d. by 1584
3. Divide £11216 17s. 4½d. by 89
4. Divide £4717 5s. 4½d. by 7000
5. Bring 2 miles 2fur. 8po. 3yds. 4in. to inches
6. Bring 451653 drams to cwts.

J

1. Multiply £13 12s. 7½d. by 88
2. Multiply £10 16s. 2½d. by 1155
3. Divide £89253 3s. 6d. by 66
4. Divide £11286526 15s. 8d. by 7603
5. Reduce 1306845 seconds to days
6. Reduce 480840 drams to cwts.

K

1. Multiply £99 14s. 8d. by 13
2. Multiply £3 6s. 11¾d. by 396
3. Divide £9826 19s. 0½d. by 69
4. Divide £951571 16s. by 604
5. Reduce 86lea. 2m. 1fur. 24po. 5yds. 2ft. 4in. to ins.
6. Reduce 536103999½ square yards to square miles

L

1. Multiply £35 14s. 1¼d. by 40
2. Multiply 16s. 2½d. by 1944
3. Divide £47334 15s. 4d. by 29
4. Divide £1411758 7s. 0½d. by 8150
5. Reduce 6cwt. 1qr. 24lbs. 8oz. to drams
6. Reduce 124205836 square inches to acres

M

1. Multiply £31 16s. 2½d. by 30
2. Multiply £2 7s. 2¾d. by 432
3. Divide £866 13s. 11¼d. by 78
4. Divide £22433 13s. by 178
5. How many gills in 65hogs. 49gals. 3qts. 1pt. 3 gills (wine)?
6. How many ounces (troy) in 692286 grains?

N

1. Multiply £2 0s. 4¾d. by 416
2. Multiply £12 15s. 10¾d. by 76
3. Divide £48419 8s. by 47
4. Divide £24078667 2s. 4¾d. by 2163
5. Reduce 525lbs. 3oz. 12dwts. to dwts. (troy)
6. Reduce 388665 drams to cwts.

O

1. Multiply £20 12s. 4¼d. by 36.
2. Multiply £1 8s. 10¾d. by 576.
3. Divide £9422 2s. 6¾d. by 97.
4. Divide £8221847 14s. by 814.
5. Reduce 3sq. m. 513a. 2ro. 25per. 2¾yds. to yards.
6. Reduce 211252c. in. to c. ft.

P

1. Multiply £13 0s. 0¾d. by 48.
2. Multiply £3 13s. 5½d. by 204.
3. Divide £83131 0s. 4d. by 98.
4. Divide £5904810 8s. 5¼d. by 62007.
5. Reduce 2a. 1ro. 29per. 17¾yds. 5ft. to feet.
6. Reduce 193769c. in. to c. feet.

Q

1. £7 5s. 1¼d. × 32.
2. Multiply £390 3s. 9½d. by 80.
3. £44190 9s. 5d. ÷ 96.
4. Divide £194525 3s. 10d. by 374.
5. Reduce 136c. yds. 11c. ft. 24c. in. to inches.
6. Reduce 28115288oz. to tons.

R

1. £25 11s. 9½d. × 38.
2. Multiply £3 12s. 11¼d. × 288.
3. £851 3s. 7d. ÷ 73.
4. Divide £49328663 0s. 1d. by 4070.
5. Reduce 2m. 36po. 2yds. 2ft. 8in. to inches (long).
6. Reduce 417858drs. to cwts.

S

1. £6 9s. 8d. × 81.
2. Multiply 11s. 6½d. by 1092.
3. £69650 10s. 8d. ÷ 88.
4. Divide £118696 5s. 2½d. by 14703.
5. Bring 2per. 13½yds. 3ft. 36in. to inches (square).
6. Bring 183067½yds. to miles (long).

T

1. £2 1s. 5½d. × 112.
2. £1950 18s. 10¼d. × 16.
3. £3553 17s. 10d. ÷ 80.
4. £1351208 10s. 1d. ÷ 2369.
5. Reduce 11lbs. 6oz. 7drs. 12grs. to grains (apothecaries').
6. Reduce 62757qrs. to tons.

U

1. £1950 18s. 10¼d. × 16.
2. £1 8s. 10¾d. × 288.
3. £29659 5s. 8d. ÷ 52.
4. £3124794 13s. 7½d. ÷ 473.
5. Reduce 30lo. 4qrs. 5bus. 1pk. 1gal. 3qts. to pints.
6. Reduce 404261sq. yards to acres.

V

1. £11 0s. 4½d. × 68.
2. £1 8s. 10¾d. × 576.
3. £464998 17s. 6d ÷ 51.
4. £734238 6s. 9½d. ÷ 69258.
5. Bring 20lbs. 3oz. 1dwt. 13grs. to grains (troy).
6. Bring 1a. 3ro. 32per. 9yds. 2ft. 4in. to inches.

W

1. Multiply £36 16s. 9¼d. by 36.
2. Multiply £3 13s. 6¼d. by 400.
3. Divide £113236 6s. 10d. by 74.
4. Divide £880778 12s. 11½d. by 5201.
5. Reduce 2 days 39min. 28sec. to seconds.
6. Reduce 205870sq. feet to roods.

X

1. Multiply £390 3s. 9¼d. by 80.
2. Multiply £3 6s. 3¼d. by 128.
3. Divide £16540 15s. 1d. by 29.
4. Divide £23713085 2s. 9d. by 3762.
5. Reduce 22yrs. 236dys. 8hrs. 27min. 15sec. to seconds.
6. Reduce 3500qrs. 3bus. 1pk. to quarts.

Y

1. Multiply £200 10s. 0¾d. by 24.
2. Multiply £67 14s. 8d. by 783.
3. Divide £5318 15s. 6d. by 84.
4. Divide £437957 15s. 10d. by 5814.
5. Reduce 50c. ft. 72c. in. to c. in.
6. Reduce 17yrs. 171dys. 21hrs. 36m. to minutes.

Z

1. Multiply £10 19s. by 57.
2. Multiply £1 16s. 8¾d. by 408.
3. Divide £83130 19s. by 98.
4. Divide £877461 10s. 10½d. by 9123.
5. Reduce 398bus. 2pks. 1qt. 1pt. 2 gills to gills.
6. Reduce 3m. 513a. 2ro. 25per. 2¾yds. to yards (square).

Test (1)

1. Multiply £7 5s. 1¼d. by 32.
2. Multiply £15 18s. 1¼d. × 20
3. Divide £721 0s. 11½d. by 17.
4. Divide £5954314 0s. 6d. by 11022.
5. Reduce 11lbs. 6oz. 7drs. 0scr. 12grs. to grains.
6. Reduce 393755403 minutes to centuries.

Test (2)

1. Multiply £8 13s. 4½d. by 48.
2. Multiply £3 16s. 8¾d. by 13824.
3. Divide £16960 8s. 4d. by 25.
4. Divide £110016 3s. 8d. by 139.
5. Reduce £1040 10s. to threepences.
6. Reduce 2 perches 13½yds. 3ft. 36in. to inches (square).

PROBLEMS. [THIRD QUARTER.

A

1. Find the value of nine horses at £147 7s. 1d. each.
2. How much are sixteen carriages worth at £91 18s. 0¼d. each?
3. Find the value of fifty carts at £31 16s. 2½d. each.
4. If the building of one ship cost £2289 15s. 8d., what will it cost for seventy-two ships of the same kind?

B

1. Find the cost of twenty-three pianos at £35 9s. 8d. each.
2. What will sixty harmoniums cost at £15 18s. 1½d. each?
3. Find the worth of eighty-seven articles at £1219 4s. each.
4. If one boy's suit of clothing costs £1 10s. 3½d., how much would it cost to clothe seven hundred and ninety-two boys?

C

1. What is the value of forty-eight ponies at £8 13s. 4½d. each?
2. If the furnishing of one house costs £736 12s., how much would it cost to furnish seventy-two houses similarly?
3. If one hat costs 11s. 6½d., what will one thousand and ninety-two cost?
4. What will ten score of sheep cost if one costs £3 13s. 6¼d.?

D

1. Find the worth of three books at sixteen shillings and eightpence-halfpenny each.
2. If one hundred sheep cost £390 3s. 9½d., what will eight thousand cost?
3. Find the value of one hundred and twenty-eight pigs at £3 6s. 3¼d. each.
4. If one yard of silk costs eight shillings and a penny farthing, what will 1296 yards cost?

E

1. What will five thousand four hundred and seventy-two caps cost at one shilling and sixpence farthing each?
2. If one pair of boots can be bought for 16s. 2½d., how much will 648 pairs cost?
3. If one pound of tea costs three shillings, and one pound of coffee 1s. 9¼d., and one pound of ham costs one shilling, what will 2184 pounds of each cost?
4. If a man earns four pounds in one week, his son John two pounds, and his son Thomas one pound seven shillings and a halfpenny, how much will they earn in one hundred weeks at the same rate?

F

1. What is the cost of three chairs at four shillings and sixpence each; four mats at one shilling and threepence each; and one sofa at £2 19s. 8¼d.?
2. Find the value of four scarf pins at one shilling and twopence each; three watch chains at £1 2s. 3d. each; two watches at £2 4s. 0¾d. each; and one clock at £36 8s. 11d.
3. What change ought I to receive out of £1000, if I pay *£400 for* a house, and £79 17s. 7d. for furniture?

4. If I give £20 for a piano, £10 for a harmonium, £4 for a watch, £6 for a clock, and £1 13s. 7½d. for pictures, what should I have left out of 100 guineas?

G

1. A man bought nine horses for £198 1s. 10½d.; what was the average price?
2. A watchmaker sold sixty-three watches in one month for £217 14s. 10½d.; what was the average price per watch?
3. A farmer sells a score of horses for £848 5s. 10d.; what was the price per horse?
4. A man built a dozen houses for £6362 1s. 0d.; what was the average price for each?

H

1. If a merchant earns £1426 18s. 5¼d. annually, what is that per day (365 days 1 year)?
2. If a man's yearly income comes to £2309 19s. 10d., what does he get weekly?
3. If a gentleman's income from 1864 to 1884 has been £11206 8s. 4d., what has he received annually?
4. What sum of money is contained 418 times in £2634787 4s. 9d.?

I

1. A farmer buys six hundred acres of land for £1335; what does he pay for one acre?
2. Divide £637667 10s. 11d. into one hundred and sixty-three equal shares.
3. A man, on leaving England for Africa, bought a dozen suits of clothes for £52 17s. 6d.; what did he pay per suit?
4. A man bought seven pigs at four pounds eight shillings and sixpence each, twenty cows at ten pounds twelve shillings and sixpence each, ten horses at twenty-five pounds eight shillings and ninepence each; how much did he pay for the lot, and what would he have left if he had £1017 19s. 5d. at first?

J

1. How many oranges at a penny each could a person get for £1 10s. 9d.?
2. How many lbs. of sweets could be bought for £120 6s., at sixpence per lb.?
3. What is the second-class railway fare from York to Scarbro' (40 miles) at a penny three farthings per mile?
4. Find the cost of one hundred and forty-seven herrings at a halfpenny each.

K

1. Find the cost of carpeting six rooms at £11 1s. 1¼d. each room.

2. What is the one hundred and ninety-third part of £1487 18s. 9¼d.?

3. How often is 14s. 8½d. contained in £611 17s. 4d.?

4. How many bricks one foot long would it take to place end to end for a distance of 5 leagues 2 miles 3 furlongs 5 poles 1½ yards?

L

1. What is the eight hundred and fourteenth part of £8221847 14s.?

2. How often is 1⅜d. contained in £1649 7s. 7½d.?

3. How many blocks of wood, each containing one cubic foot, can be cut out of a quantity of timber containing 211252 cubic inches?

4. What does it cost for thirty-four canoes at £40 3s. 2d. each?

M

1. What is the price of eighty cows if each costs £18 7s. 7¼d.?

2. What change ought I to receive out of £100 if I paid for the following:—tea £6 4s. 2¼d.; sugar £1 8s. 7½d.; bread £20 8s. 3½d.; currants £1 17s. 6½d.; coffee £3; raisins £3 7s. 6d.; soap 18s. 9½d.; butter £3 0s. 9¼d.; and other items £43 9s. 10½d.; and £1 carriage?

3. A person rented a house for £42 7s. 2d. yearly; what was his weekly payment?

4. A boy earns one week with another 15s. 10d.; in how many weeks will he earn £1399 13s. 4d.?

N

1. If four hundred and eighteen articles cost £2634787 4s. 9d., what did one cost?

2. If one silver watch cost £3 13s. 6¼d., find the cost of two hundred.

3. How many times can £29 4s. be subtracted from £26163 4s.?

4. Find the worth of $5\frac{5}{11}$ articles at £174 19s. 1¾d. each.

O

1. If $2\frac{2}{5}$ articles cost £17087 2s., find the worth of one.

2. If a man, stepping thirty-six inches each stride, walks 49m. 1fur. 2po. 1yd., how many steps will he take?

3. What is the value of three score ships, if one ship costs £1575 18s. 1¼d.?

4. Find the worth of $7\frac{1}{5}$ score of sheep at £7 7s. 3¼d. per sheep

P

1. From Allerston to Ebberston is 1m. 1fur. 24po., and from Snainton to Ebberston is 1m. 4fur. 36po. 2yds.; how many yards less is it to walk to Allerston than to Snainton from Ebberston?

2. I bought two pieces of silk, one containing nine yards and the other seven, for £6 12s. 8d.; what was the price per yard?

3. If a man pays £365 3s. 4d. for forty cows, what is the average price?

4. How many lbs. of cheese at 8d. per lb. can I get for £34 13s. 4d.?

Q

1. If forty-one sheep are bought for £180 13s. 1½d., what is the price of one?

2. One dozen horses cost £86 13s.; five score of sheep cost two hundred guineas; how much more is paid for a horse than for a sheep?

3. If a labourer earns £52 10s. 3½d. per year, how much will he earn in a dozen years at the same rate?

4. How many times is £8 6s. 8¾d. contained in £6010 11s. 8¾d.?

R

1. If a ton of coals cost 14s. 8½d., how many tons can be bought for £611 17s. 4d.?

2. Multiply £450 4s. 11¾d. by one hundred and forty-seven, and divide the product by seven.

3. Multiply one-twelfth of £117 16s. 4d. by one hundred and eight.

4. Divide one thousand six hundred and forty-nine pounds seven shillings and sevenpence-halfpenny by 1⅜.

S

1. If one mile of railway costs £4411, what is the price of one yard?

2. If it costs £179 14s. 6d. to keep half a dozen homes for one year, what does it cost to keep them one week?

3. Divide £3822415 11s. 6½d. equally among 901 persons.

4. How many penny dolls can be bought for 224 guineas ten shillings and twopence?

T

1. How many five-pound parcels of sugar can be made up out of 71 tons 14cwt. 12lbs.?

2. How many days were there from the beginning of January, 1882, to the end of February, 1883?

3. How many half-pound parcels of sugar can be made up out of ten casks, each containing one ton four cwt. three quarters six pounds?

4. If a man, walking at the rate of 2 miles 7 furlongs 16 poles 4 yards per hour walks for twelve hours, how many yards will he have walked?

U

1. Find the ninety-sixth part of £7231 11s. 5½d.

2. Add together £35 9s. 8d. twenty-three times.

3. Take nine times £12 6s. 8½d. from twice times £514 11s. 5¾d.

4. How many books at five shillings each can be bought for £25760?

V

1. How many sixpenny dinners can be got for £1785 10s. 6d.?

2. How many children could be given a penny glass of milk, a twopenny bun, and a penny orange, out of £1373 17s. 4d.?

3. How much would be received from 56716 persons going through the Crystal Palace at 4d. each?

4. How many lbs. of nuts at fourpence per lb. can be bought for £1700 10s.?

W

1. How many ounces of tea are there in a case weighing 2 ton 5cwt. 2qr. 5lbs. 8oz.?

2. Multiply ⅐ of £7879 10s. 6¼d. by 84.

3. Divide £58078 3s. 3d. by 5¾.

4. How many square yards of land are there in a farm of 3 miles 513 acres 2 roods 25 poles 2¾ yards?

X

1. How many cwts. are there in 388665 drams?

2. If one hat cost 12s. 7d., how many hats could I buy for £898 9s. 0d.?

3. How many coats could I buy for £1596 18s. 9d. at £1 0s. 10½d. each?

4. Multiply £286 4s. 5½d. by 7488, and divide the product by thirteen.

Y

1. If a school contains ten maps at 18s. each, twelve desks at £1 4s. 6d. each, one master's desk £5 9s. 5d., six chairs at 3s. 6d. each, sundries £3 4s. 11½d.; find the value of the lot.

2. How many articles at £2 18s. 4¾d. each can be bought for 1249 13s. 5d.?

3. How many apples at a farthing each can be bought for £53 2s. 9¾d.?

4. Multiply $\frac{1}{19}$ of £20 1s. $4\frac{3}{4}$d. by 608.

1. What change ought a man to get out of one hundred guineas if he furnished a room with a sofa at £5 15s. 0d., six chairs at half a guinea each, 17 yards of carpet at 5s. 4½d. per yard, sundries £6 14s. 4½d., and a piano £18 10s. 0d.?

2. If a suit of clothes cost £6 6s. 9¾d., how many suits could be bought for £5015 8s. 8½d.?

3. Find the value of 576 clocks at £1 8s. 10¾d. each.

4. If fifty-one horses cost £464998 17s. 6d., find the value of one.

INSPECTORS' TESTS. [FOURTH QUARTER.

TO THE TEACHER.—The Inspectors' Arithmetic Test for the Fourth Standard generally consists of a compound multiplication sum, a compound division, a reduction in common weights and measures, and one or two problems. The scholars in this Standard are generally placed as in Standard III. Some Inspectors dictate the sums; others have them on printed cards, and others on both printed and written cards.

The following pieces of dictation and similar sums have been given by Inspectors this year in different districts:—

(DICTATED BY ASSISTANT-INSPECTOR).

A

1. Multiply twenty-one pounds seventeen shillings and sevenpence-halfpenny by forty-eight (£21 17s. 7½d. × 48).

2. Divide eight hundred and sixty-six pounds thirteen shillings and elevenpence-farthing by seventy-eight.

3. Reduce two hundred and seventy-three thousand eight hundred and eighteen pounds to tons.

4. A woman bought three pounds of sugar at fourpence-halfpenny per lb., a quarter of a pound of tea at three shillings and eightpence per lb., and a bonnet for four shillings and sixpence; how much had she left out of a sovereign?

Dictation.

"In childhood's hour I lingered near
The hallowed seat with listening ear,
And heeded the words of truth that fell
From the lips of a mother that loved me well.
She told me shame would never betide
With truth for my creed and God for my guide.
She taught me to lisp my earliest prayer
As I knelt beside that old arm-chair."

B

Given on Printed Cards A, B, and C—

1. Reduce 2 miles 1 furlong 31 poles 1½ yards to yards.
2. Multiply £163 3s. 4¾d. by 26.
3. Divide twenty-one thousand six hundred and sixty-one pounds thirteen shillings by thirty-seven.
4. If three feeds consist of a peck of corn, how many feeds are there in 63 quarters 4½ bushels?
5. If a man earns £2 5s. 6d. a week, his wife £1 8s., and his son 17s. 6d., in how many weeks will they earn £3407 19s.?

Dictation.

1. "Concealed beneath a mangled heap
His hurried search had missed,
All glowing from his rosy sleep
His cherub boy he kissed."

(From first set of Reading Books.)

2. "I fell into grief and began to complain,
I looked for a friend but I sought him in vain.
Companions were shy, and acquaintance were cold,
They gave me good counsel, but dreaded their gold."

(From second set of Reading Books.)

C

1. Express in lbs. 18 ton 18cwt. 3qrs. 8lbs.
2. Multiply £101 12s. by 522.
3. Divide seventeen thousand four hundred and eighty-one pounds nineteen shillings and fourpence by twenty-six.
4. Each side of a square field is a quarter of a mile and 6¼ yards long. If posts are needed every 2½ yards, how many will be required to go round the field?
5. If a man earns £9 0s. 6d. a week, and saves £47 4s. 8d. per year, how much does he spend every week?

Dictation.

No useless coffin enclosed his breast,
Nor in sheet nor in shroud we wound him;
But he lay like a warrior taking his rest,
With his martial cloak around him.
Few and short were the prayers we said,
And we spoke not a word of sorrow,
But we steadfastly gazed on the face of the dead,
And we bitterly thought of the morrow.

D

1. How many inches are there in 1 acre 3 roods 32 perches 9yds. 2ft. 48 inches?

2. Multiply twenty pounds one shilling and sevenpence by sixty-eight.

3. Divide nine thousand eight hundred and twenty-six pounds nineteen shillings and a halfpenny by sixty-nine.

4. How many suits of clothes, each containing 3 yards 3qrs. 2 nails, can be made out of 6785 yards 2 nails.

5. A farmer took to market 76 sheep, worth £156 2s. 2d.; if he sold 50 at £1 7s. 9d. each, and the rest at £2 12s. 8d. each, how much did he lose?

Dictation.—They have reached the pass. A cry is uttered by one of the shepherds as he sees a bit of a tartan cloak among the snow. They have found the widow—dead, her arms stretched forth as if imploring assistance. Before noon they discovered her child by his cries. He was safe in the crevice of the rock. The story of that woman's affection for her child was soon read in language which all understood. Many a tear was shed, many a sigh of affection was uttered from sorrowing hearts, when, on that evening, the aged pastor gathered the villagers into the deserted house of mourning, and by prayer and fatherly exhortation sought to improve for their souls' good an event so sorrowful.

E

1. Multiply £3 15s. 0½d. by 168.

2. Divide seven thousand two hundred and thirty-one pounds eleven shillings and fivepence-halfpenny by ninety-six.

3. Reduce 1 mile 2 furlongs 24 poles 2yds. 2ft. to inches.

4. If one horse cost £94 9s. 7d., how many similar horses can I get for £87582 3s. 9d.?

5. If seven pounds of tea at two shillings and eightpence per pound, six pounds of butter at one shilling and threepence per pound, seven pounds of sugar at threepence-halfpenny per pound, and other things £7 14s. 9½d. be paid for out of four five-pound notes, what change ought to be received?

F

1. Divide seven thousand nine hundred and seventy-four pounds seventeen shillings and a penny halfpenny by ninety-seven.

2. Reduce 2 perches 13½ yards 3 feet 36 inches to inches.

3. Multiply two pounds seven shillings and twopence three farthings by four hundred and thirty-two.

4. If a man walks at the rate of two yards per second, how many hours, &c. will he be in walking 46 miles 4 furlongs 12 poles at the same rate?

5. If one hat can be bought for eight shillings and fourpence three farthings, how many can be bought for £513 16s. 6d.?

G

1. Bring 199 tons 5cwt. 63lbs. to ounces.

2. Multiply one pound eight shillings and tenpence three farthings by five hundred and seventy-six.

3. Divide £8665 16s. 8¼d. by ninety-one.

4. If one carriage cost £73 0s. 5¼d., how many could I get for £75212 10s. 7½d.?

5. How many minutes are there from January 1st, twenty-five minutes past nine in the morning, to March 20th, at nine o'clock in the evening, in the year 1884?

H

1. Multiply five pounds nine shillings and ninepence-farthing by sixty-four.

2. Reduce 18 tons 18cwt. 3qrs. 8lbs. to lbs.

3. Divide £45272 16s. 6d. by 78.

4. A man earns £176 16s. in one year; how much will he earn in 3 years 8 months?

5. How many times is £8 6s. 8¾d. contained in £6010 11s. 8¾d.?

I

1. Reduce 12353lbs. to tons.

2. Divide £6249589 7s. 3d. by 946.

3. Multiply three pounds thirteen shillings and fivepence-halfpenny by two hundred and four.

4. If I pay 14s. 8½d. for one lamb, how many could I buy for £611 17s. 4d.?

5. A man bought five thousand books for £54 17s. 2½d, and sold them at 7¼d. each; what did he gain?

J

1. Find the quotient of £352074 12s. 8¾d. and 36925.

2. Reduce 1 mile 4 furlongs 35 poles 1½ yard 6 inches to inches.

3. Multiply fifteen shillings and a penny three farthings by 1584.

4. How many parcels of sugar, each weighing two-thirds of a pound, can be made up out of 3603 tons 12cwt. 16lbs.?

5. What is the cost of twelve dozen reading books at ten shillings per dozen; eight and a quarter dozen atlases at sixpence each; and four large maps at £1 3s. 6¾d. each?

K

1. Find the product of ten pounds sixteen shillings and twopence-halfpenny multiplied by one thousand one hundred and fifty-five.

2. How many miles are there in 424449 poles (long)?

3. Divide £11286526 15s. 8d. by 7603.

4. How many pigs could a farmer buy for £1596 18s. 9d. if he paid £1 0s. 10½d. for each?

5. If a man's step averages 2½ feet, how many steps will he take in walking 77 miles 2 furlongs 14 poles 3 yards;

L

1. Multiply eleven pounds nine shillings and a penny three farthings by two hundred and thirty-four.

2. Divide £639059 2s. 2¼d. by 190.

3. Reduce to square miles 1288700969 square yards.

4. If a butcher pays £3 4s. 2¼d. for each sheep, how many would he get for £1684 18s. 5¼d.

5. What is the total length of a square field, one side of which is 154 yards 2 feet one inch long?

M

1. Reduce 21709977¼ square yards to acres.

2. Multiply eight shillings and a penny farthing by one thousand two hundred and ninety-six.

3. Divide £5318 15s. 6d. by eighty-four.

4. A farmer buys cows at an average price of £8 8s. 3¾d.; how many would he get for £6597 17s.?

5. If 7lbs. of tea at 2s. 8d. per lb. are mixed with 14lbs. of tea at 2s. 11¾d. per lb., what is the value of 3lbs. of the mixture?

N

1. Find the product of £20 12s. 4¼d. × 36.

2. Find the quotient of £5432 11s. 4½d. and 63.

3. Reduce 2 cubic yards 333 cubic inches to cubic inches.

4. If a boy's suit of clothes cost £2 3s. 4d., how many similar suits could be got for £2210?

5. Express in seconds from six o'clock this morning to 39 seconds one minute after three to-morrow afternoon.

O

1. Add £450 4s. 11¾d. twenty-one times.
2. Reduce 937840 seconds to days.
3. Divide £88390 18s. by seventy-eight.
4. How many square inch tablets could be placed side by side on a level plot of ground containing one acre 3 roods 32 perches 9 yards 2 feet 48 inches?
5. If a gentleman saves £7 5s. 11¼d. a week, in how many weeks will he save £9675 13s. 1½d.?

P

1. Reduce fifty-nine thousand six hundred and nineteen yards to miles (long measure).
2. Divide £721 0s. 11½d. by seventeen.
3. Multiply sixty-seven pounds fourteen shillings and eightpence by seven hundred and eighty-three.
4. If a man has £49508 16s. 7½d., how many cottages can he build at £73 0s. 5¼d. each?
5. How many pounds of figs at fivepence per lb. should be given in exchange for 8cwt. 14lbs. of sugar at 4s. 8d. per stone?

Q

1. Multiply one pound ten shillings and threepence-halfpenny by seven hundred and ninety-two.
2. Divide eleven thousand two hundred and sixteen pounds seventeen shillings and fourpence-halfpenny by eighty-nine.
3. How many pounds are there in 785936 grains (troy)?
4. If a jeweller sells watches at ten shillings each, and chains at two shillings and sevenpence each, how many of each would he sell me for £898 9s.?
5. What will be charged for twelve tons of coal at £1 3s. 3d. per ton, with two shillings and threepence per ton extra for delivery?

R

1. What is the product of £2 8s. 7½d. × 648?
2. How many gallons are there in 1334 pipes 12gal. (wine)?
3. Divide twelve thousand eight hundred and eighteen pounds nine shillings and ninepence-halfpenny by seventy-four.
4. Divide 1234 guineas 18 shillings and 4½d. equally among seven persons.
5. How many 2lb. packets of soap can be sent out from four soap works, each containing 43 tons 14cwt.?

S

1. Multiply twenty pounds one shilling and fourpence three farthings by sixteen.

2. Reduce 13710 pecks to quarters.

3. Divide sixteen thousand five hundred and forty pounds fifteen shillings and a penny by twenty-nine.

4. If a gentleman pays £7 6s. 9½d. weekly for board and lodging, how many weeks will he be in paying £4491 16s. 6d.?

5. A merchant gained £44 18s. from Monday morning to Saturday night; what was his daily gain?

T

1. Reduce 136 cubic yards 11 cubic feet 24 cubic inches to inches.

2. Multiply one pound sixteen shillings and eightpence three farthings by 408.

3. Divide eighty-three thousand one hundred and thirty pounds nineteen shillings by ninety-eight.

4. Multiply one-seventh of £7879 10s. 6¼d. by eighty-four.

5. How many bags of coal can be bought for £25760 if the coal costs 4s. 9d. and the bag threepence?

U

1. Reduce 19509 gallons 1 quart 1 pint to pints.

2. Multiply two hundred and eighty-six pounds four shillings and fivepence-halfpenny by five hundred and seventy-six.

3. Divide £1411758 7s. 0½d. by 8150.

4. A manufacturer pays in wages £229 10s. 8d. weekly; what will he pay his workmen from February 1st to March 28th (1885)?

5. How many acres are there in 124205836 square inches?

V

1. Divide seventeen million seventy-seven thousand three hundred and thirty pounds seven shillings and tenpence-halfpenny by eight hundred and five.

2. Reduce 3 weeks 3 days 4 hours 51 minutes to minutes.

3. Multiply £1 8s. 10¾d. by 288.

4. If five score of sheep cost 200 guineas, and a dozen horses cost £86 13s., how much less does a sheep cost than a horse?

5. If a man walks 2 miles 7 furlongs 16 poles 4 yards in one hour, how many yards will he walk in 12 hours at the same rate?

W

1. Multiply £7 7s. 3¼d. × 144.
2. How many grains are there in 20lbs. 3oz. 1dwt. 13 grains (troy)?
3. Divide forty-nine million three hundred and twenty-eight thousand six hundred and sixty-three pounds and a penny by four thousand and seventy.
4. A man pays £22 2s. 0¾d. each to his five servants every five months; how much does he pay them in five years?
5. If one horse costs eighteen pounds seven shillings and sevenpence-farthing, find the value of four score similar horses.

X

1. Divide eighty-three thousand one hundred and thirty pounds nineteen shillings by ninety-eight.
2. Multiply fourteen pounds fifteen shillings and fourpence three farthings by sixty-four.
3. Bring 2 acres 1 rood 29 perches 17¾ yards 5 feet to feet.
4. How many times will 1⅜ go into £1649 7s. 7½d.?
5. A person spends £51 0s. 1¾d. per month; what will he spend in two years?

Y

1. Multiply eight pound seventeen shillings and fivepence by one hundred and thirty-eight, and subtract the product from £2412 13s. 3d.
2. Divide £22433 13s. by 178.
3. Reduce 65 hogsheads 49 gallons 3 quarts 1 pint 3 gills to gills (wine).
4. Multiply £1071 3s. 1½d. by 1⅓.
5. If a man spends £1122 1s. 5d. annually, how much does he spend every five days?

Z

1. Reduce 7927445 minutes to years.
2. Multiply one hundred and forty-three pounds two shillings and twopence three farthings by one thousand one hundred and fifty-two.
3. Divide £5158 14s. 6d. by thirty.
4. Divide £95907 6s. 4½d. by 5⅔.
5. A man saves £23 6s. 0½d. in one week; what will he save in eighty-four weeks at the same rate?

THE

'TRY" ARITHMETIC.

PART V. FOR STANDARD V.

[FIRST QUARTER.

Find the Greatest Common Measure—(G.C.M.)

A	B	C	D
1. 24, 48	1. 130, 338	1. 336, 2828	1. 384, 432, 648
2. 108, 360	2. 273, 390	2. 5928, 9360	2. 5136, 69336, 1605
3. 1236, 2060	3. 144, 528	3. 2080, 2912	3. 6848, 21828, 2140
4. 1020, 6630	4. 3605, 5150	4. 8320, 14040	4. 16960, 38160, 2650
5. 3672, 6732	5. 7194, 10464	5. 9984, 16848	5. 41856, 47088, 3270

Find the Least Common Multiple—(L.C.M.)

E	F	G
1. 2, 4, 7, 28	1. 11, 8, 13, 88	1. 77, 11, 5, 7, 29, 203, 55, 35
2. 3, 12, 4, 9, 18	2. 9, 16, 27, 81, 324	2. 4, 9, 10, 15, 21, 18, 20
3. 3, 24, 16, 8	3. 253, 11, 23, 2, 13, 572	3. 9, 13, 8, 4, 7, 1008, 18
4. 13, 8, 5, 52, 4	4. 206, 2, 103, 7	4. 7, 28, 4, 13, 7, 1456
5. 6, 9, 27, 113, 54	5. 5, 4, 15, 8, 13	5. 8, 5, 2, 10, 53

H

1. 5, 14, 98, 49,,294
2. 2, 2, 5, 3, 153, 255, 765
3. 5, 16, 42, 80, 336, 560
4. 13, 17, 26, 2, 104, 136
5. 7, 42, 63, 126, 189, 378, 945

Reduce to Lowest Terms.

I	J	K	L
1. $\frac{5}{1180}$	1. $\frac{69}{460}$	1. $\frac{105}{2500}$	1. $\frac{6}{2054}$
2. $\frac{8}{2816}$	2. $\frac{301}{4480}$	2. $\frac{287}{4340}$	2. $\frac{9905}{291176}$
3. $\frac{9}{3978}$	3. $\frac{477}{4880}$	3. $\frac{627}{6880}$	3. $\frac{12662}{635050}$
4. $\frac{10}{5808}$	4. $\frac{915}{12360}$	4. $\frac{427}{1530}$	4. $\frac{177647}{270732}$
5. $\frac{11}{6853}$	5. $\frac{13121}{23850}$	5. $\frac{876}{6504}$	5. $\frac{6056}{15785}$

Reduce to Whole or Mixed Numbers.

M	N	O	P
1. $\frac{7}{2}$	1. $\frac{67}{9}$	1. $\frac{3416}{284}$	1. $\frac{16010}{457}$
2. $\frac{29}{6}$	2. $\frac{53}{6}$	2. $\frac{14457}{104}$	2. $\frac{992963}{25640}$
3. $\frac{27}{5}$	3. $\frac{8821}{90}$	3. $\frac{12006925}{8112}$	3. $\frac{265201}{520}$
4. $\frac{49}{8}$	4. $\frac{301}{30}$	4. $\frac{7654}{5}$	4. $\frac{59255}{884}$
5. $\frac{38}{5}$	5. $\frac{6671}{566}$	5. $\frac{97801}{6112}$	5. $\frac{49157}{663}$

Reduce to Improper Fractions.

Q	R	S	T
1. $10\frac{1}{2}$	1. $393\frac{7}{12}$	1. $10100\frac{1}{10}$	1. $1040\frac{3}{5}$
2. $6\frac{1}{4}$	2. $686\frac{5}{6}$	2. $16\frac{4}{7}$	2. $765\frac{1}{8}$
3. $6\frac{2}{5}$	3. $1060\frac{3}{5}$	3. $63\frac{1}{2}$	3. $8\frac{833}{837}$
4. $11\frac{3}{4}$	4. $7\frac{853}{894}$	4. $14\frac{7}{9}$	4. $34\frac{53}{140}$
5. $7\frac{5}{8}$	5. $39\frac{137}{198}$	5. $24\frac{1}{8}$	5. $1311\frac{5}{7}$

Addition.

U

1. $\frac{1}{2}+1\frac{1}{2}+\frac{1}{2}$
2. $2\frac{1}{3}+\frac{11}{18}+\frac{5}{9}$
3. $2\frac{5}{6}+\frac{5}{6}+\frac{3}{6}$
4. $\frac{3}{5}+4\frac{3}{5}+\frac{4}{5}$
5. $\frac{6}{8}+\frac{3}{4}+5\frac{1}{2}$

V

1. $\frac{1}{2}+\frac{1}{4}+\frac{1}{8}+\frac{3}{16}+4\frac{1}{8}+\frac{11}{16}$
2. $\frac{3}{8}+\frac{5}{8}+3\frac{3}{8}+\frac{59}{72}+1\frac{1}{2}$
3. $2\frac{5}{7}+2\frac{4}{7}+3\frac{1}{7}+\frac{1}{14}+\frac{5}{28}$
4. $\frac{7}{11}+6\frac{1}{8}+\frac{10}{132}+\frac{18}{121}+\frac{9}{44}$
5. $8\frac{4}{10}+\frac{3}{7}+\frac{5}{9}+\frac{1}{11}+\frac{1}{63}$

W

1. $1\frac{1}{8}+\frac{1}{2}+\frac{1}{3}+\frac{1}{4}+\frac{1}{8}$
2. $33\frac{3}{10}+\frac{3}{8}+\frac{3}{4}+\frac{3}{8}$
3. $2\frac{1}{4}+1\frac{5}{36}+\frac{3}{4}$
4. $\frac{1}{2}+\frac{1}{3}+\frac{1}{4}+\frac{1}{6}+3\frac{11}{16}\frac{31}{60}$
5. $2\frac{1}{3}+1\frac{1}{2}+\frac{1}{6}+2\frac{4}{15}$

X

1. $\frac{4}{11}+\frac{1}{7}+\frac{3}{11}+\frac{5}{14}$
2. $2\frac{1}{4}+3\frac{1}{3}+4\frac{1}{3}+2\frac{91}{324}$
3. $2\frac{1}{4}+3\frac{1}{2}+4\frac{3}{8}+1\frac{1}{8}+2\frac{7}{24}$
4. $2\frac{3}{8}+\frac{3}{5}+4\frac{1}{2}+5\frac{1}{8}+2\frac{1}{8}$
5. $4\frac{4}{6}+3\frac{3}{8}+\frac{4}{9}+\frac{1}{2}+\frac{3}{4}+2\frac{1}{8}+2\frac{3}{8}+\frac{31}{72}$

Subtraction.

Y

1. $3\frac{1}{2}-\frac{3}{4}$
2. $7\frac{1}{8}-3\frac{3}{8}$
3. $5\frac{5}{12}-1\frac{7}{12}$
4. $6\frac{1}{2}-1\frac{3}{16}$
5. $9\frac{5}{8}-2\frac{3}{4}$

Z

1. $8\frac{3}{4}-1\frac{1}{12}$
2. $9\frac{3}{4}-1\frac{7}{12}$
3. $12\frac{3}{8}-3\frac{1}{16}$
4. $15\frac{3}{10}-5\frac{4}{15}$
5. $14\frac{4}{7}-3\frac{2}{3}$

Test 1.

1. $40\frac{4}{5}-9\frac{2}{3}$
2. $11\frac{1}{8}-6\frac{7}{24}$
3. $601\frac{1}{10}-90\frac{3}{10}$
4. $10\frac{3}{4}-3\frac{7}{8}$
5. $12\frac{1}{2}-4\frac{9}{16}$

Test 2.

1. $871\frac{3}{8}-340\frac{21}{40}$
2. $930\frac{3}{4}-318\frac{5}{8}$
3. $12\frac{1}{4}-5\frac{11}{12}$
4. $901\frac{3}{4}-52\frac{1}{8}$
5. $983\frac{1}{2}-65\frac{3}{16}$

PRACTICE.

Less than 1s.—Ex. I.

A.

1. 3204 @ $\frac{1}{4}$d.
2. 2115 $\frac{1}{2}$d.
3. 180912 $\frac{3}{4}$d.

B.

1. 199728 @ $\frac{3}{8}$d.
1. 68361 $\frac{1}{4}$d.
3. 13797 $1\frac{1}{2}$d.

C.

1. 44576 @ $1\frac{1}{4}$d.
2. 32130 $\frac{1}{4}$d.
3. 28808 $3\frac{1}{2}$d.

D.

1. 3173 @ 2d.
2. 60496 $1\frac{1}{4}$d.
3. 42646 $\frac{1}{4}$d.

E.

1. 334324 @ $\frac{1}{2}$d.
2. 174761 1d.
3. 53791 4d.

F.

1. 11095 @ $1\frac{1}{2}$d.
2. 242020 $\frac{3}{4}$d.
3. 88768 $2\frac{1}{4}$d.

G.

1. 320 @ $1\frac{3}{4}$d.
2. 41428 2d.
3. 14404 7d.

H.

1. 18672 @ $6\frac{3}{4}$d.
2. 66821 $2\frac{1}{2}$d.
3. 11723 $1\frac{1}{2}$d.

I.

1. 4226 @ $1\frac{1}{4}$d.
2. 19267 4d.
3. 12736 $8\frac{3}{4}$d.

J.

1. 326448 @ $\frac{3}{4}$d.
2. 34896 $8\frac{1}{2}$d.
3. 293802 1d.

K.

1. 104688 @ $1\frac{3}{4}$d.
2. 28808 7d.
3. 49132 $4\frac{3}{4}$d.

L.

1. 148176 @ $1\frac{3}{4}$d.
2. 510440 $5\frac{1}{2}$d.
3. 36608 $8\frac{1}{2}$d.

M.

1. 26895 @ 2d.
2. 35860 $2\frac{1}{4}$d.
3. 12724 8d.

N.

1. 508924 @ $5\frac{1}{4}$d.
2. 12099 $2\frac{1}{2}$d.
3. 115740 $2\frac{3}{4}$d.

O.

1. 31536 @ $4\frac{3}{4}$d.
2. 1532356 $1\frac{1}{4}$d.
3. 42048 $4\frac{3}{4}$d.

P.

1. 28808 @ $1\frac{3}{4}$d.
2. 30656 $2\frac{3}{4}$d.
3. 10512 $9\frac{1}{2}$d.

Q.

1. 32099 @ 7d.
2. 69792 $3\frac{3}{4}$d.
3. 254462 $10\frac{1}{2}$d.

R.

1. 16848 @ $9\frac{3}{4}$d.
2. 24202 $7\frac{1}{2}$d.
3. 17032 $11\frac{1}{2}$d.

S.

1. 363230 @ $8\frac{1}{4}$d.
2. 28292 $11\frac{1}{4}$d.
3. 34277 10d.

T.

1. 34064 @ $11\frac{1}{2}$d
2. 42032 10d
3. 4806 $9\frac{1}{4}$d

U.	V.	W.	X.
1. 4626 @ 9¼d.	1. 30538 @ 7½d.	1. 6362 @ 8d.	1. 32564 @ 5d.
2. 6586 6¾d.	2. 74088 3½d.	2. 15328 5½d.	2. 2689300 6½d.
3. 44740 10½d.	3. 255220 10½d.	3. 11096 9d.	3. 21024 9½d.

Y.	Z.	Test 1.	Test 2.
1. 401652 @ 4¼d.	1. 56576 @ 5½d.	1. 10758 @ 7½d.	1. 10613 @ 1¼d.
2. 34064 5¾d.	2. 70730 4½d.	2. 53791 2d.	2. 1607 11¼d.
3. 583528 3¾d.	3. 22787 1½d.	3. 13152 10¼d.	3. 1971 10½d.

PRACTICE.

Less than £1.—Ex. II.

A.	B.	C.
1. 576 @ 15s. 1¾d.	1. 21168 @ 1s. 0¼d.	1. 4652 @ 1s. 5½d.
2. 7201 1s. 5d.	2. 12 18s. 10½d.	2. 5472 1s. 6¼d.
3. 10512 1s. 2¼d.	3. 24966 1s.	3. 6224 1s. 8¼d.

D.	E.	F.
1. 8208 @ 1s. 6½d.	1. 242172 @ 1s.	1. 2313 @ 1s. 6½d.
2. 1075720 1s. 4½d.	2. 19276 1s. 5d.	2. 28358 1s. 4d.
3. 10944 1s. 6¼d.	3. 28232 1s. 0½d.	3. 24 16s. 1¾d.

G.	H.	I.
1. 3392 @ 1s. 4d.	1. 21888 @ 1s. 6¼d.	1. 7345 @ 1s. 8d.
2. 990 6s. 9½d.	2. 32017 1s. 1d.	2. 14116 1s. 0½d.
3. 6368 1s. 5½d.	3. 2403 1s. 6½d.	3. 1456 11s. 6½d.

J.	K.	L.
1. 1152 @ 15s. 1¾d.	1. 12 @ 15s. 3½d.	1. 17032 @ 1s. 5¼d
2. 64 2s. 10¾d.	2. 1170432 1s. 9¾d.	2. 21219 1s. 3d.
3. 14138 1s. 6d.	3. 1584 15s. 1¾d.	3. 16 17s. 8d.

M.	N.	O.
1. 1296 @ 8s. 1¼d.	1. 32 @ 10s. 1¾d.	1. 1393 @ 3s. 4d.
2. 11632 1s. 1½d.	2. 304046 1s. 1½d.	2. 1980 3s. 4¾d.
3. 1008 15s. 1¾d.	3. 1998 1s. 10¼d.	3. 4432 1s. 10¾d.

P.	Q.	R.
1. 11632 @ 1s. 10½d.	1. 330 @ 13s. 7d.	1. 14104 @ 1s. 0¾d.
2. 1584 15s. 1¾d.	2. 495 13s. 7d.	2. 8864 1s. 10¾d.
3. 184512 1s. 3¾d.	3. 684 12s. 2d.	3. 1296 15s. 1¾d.

S.	T.	U.
1. 5472 @ 3s. 0¼d.	1. 24 @ 10s. 11¼d.	1. 1648644 @ 1s. 6d.
2. 24 7s. 7¾d.	2. 17645 1s. 8d.	2. 16 16s. 8¾d.
3. 1755648 1s. 2½d.	3. 1944 16s. 2½d.	3. 24 11s. 10¾d.

V.	W.	X.
1. 7203 @ 3s.	1. 17032 @ 1s. 11d.	1. 2912 @ 5s. 9½d.
2. 16 14s. 0½d.	2. 32 10s. 10d.	2. 16 11s. 7d.
3. 12774 1s. 11d.	3. 666 5s. 6¾d.	3. 133632 15s. 10½d.

Y.	Z.	Test 1.
1. 66816 @ 15s. 10½d.	1. 1944 @ 16s. 2½d.	1. 1793 @ 2s. 6d.
2. 1026 12s. 2d.	2. 10944 3s. 0½d.	2. 5269 1s. 4d.
3. 1008 15s. 1¾d.	3. 666 5s. 4¼d.	3. 1393 6s. 8d.

Test 2.

1. 3779 @ 2s. 6d. 2. 1454 @ 7s. 6d. 3. 1521 @ 9s.

PRACTICE.—Ex. III.

More than £1.

A.

	£	s.	d.
1. 1029 @	1	1	0
2. 528	2	5	5¼
3. 1144	1	2	8

B.

	£	s.	d.
1. 280 @	1	4	2¾
2. 288	1	8	10½
3. 68	7	10	0¼

C.

	£	s.	d.
1. 1989 @	1	6	11½
2. 64	5	9	9¼
3. 364	1	3	1

D.

	£	s.	d.
1. 432 @	18	15	7
2. 144	6	16	3¾
3. 864	1	4	3¾

E.

	£	s.	d.
1. 144 @	1144	17	10
2. 108	158	7	1¾
3. 1408	1	6	1

F.

	£	s.	d.
1. 320 @	1	9	0¼
2. 1044	50	16	0
3. 144	4	6	8½

G.

	£	s.	d.
1. 640 @	2	14	8¾
2. 111	1	13	4½
3. 280	6	19	9¾

H.

	£	s.	d.
1. 162 @	1	8	2
2. 16	20	1	4¾
3. 280	1	13	2

I.

	£	s.	d.
1. 648 @	1	10	3½
2. 882	1	4	6
3. 144	8	6	7¼

J.

	£	s.	d.
1. 1728 @	30	13	10
2. 364	1	14	7½
3. 136	5	10	2¼

K.

	£	s.	d.
1. 576 @	1	8	10¾
2. 21	450	4	11¾
3. 66816	1	11	9

L.

	£	s.	d.
1. 6048 @	2	0	0½
2. 45	29	9	5
3. 400	3	13	6¼

M.

	£	s.	d.
1. 864 @	1	15	9½
2. 1152	143	2	2¾
3. 111	1	12	1½

N.

	£	s.	d.
1. 128 @	3	6	3¼
2. 522	101	12	0
3. 312	2	0	4¾

O.

	£	s.	d.
1. 120 @	1	17	4¼
2. 80	390	3	9½
3. 224	2	1	5½

P.

	£	s.	d.
1. 576 @	286	4	5½
2. 666	0	5	4¼
3. 6586	0	0	6¾

Q.

	£	s.	d.
1. 3132 @	33	17	4
2. 210	53	3	5
3. 276	4	8	8½

R.

	£	s.	d.
1. 12 @	1	1	11¾
2. 400	3	13	6¼
3. 324	4	17	3

S.

	£	s.	d.
1. 13824 @	3	16	8¾
2. 364	1	14	7½
3. 306	23	4	10½

T.

	£	s.	d.
1. 1728 @	61	7	8
2. 1584	0	15	1¾
3. 2310	5	8	1¼

U.

	£	s.	d.
1. 24 @	8	18	4¾
2. 16	1988	16	4¾
3. 144	3	8	4½

V.

	£	s.	d.
1. 144 @	10	18	$9\frac{3}{4}$
2. 1152	143	2	$2\frac{3}{4}$
3. 52	33	7	$0\frac{1}{4}$

W.

	£	s.	d.
1. 13824 @	7	13	$5\frac{1}{2}$
2. 16	70	16	$6\frac{1}{4}$
3. 1155	10	16	$2\frac{1}{2}$

X.

	£	s.	d.
1. 234 @	11	9	$1\frac{3}{4}$
2. 20	15	18	$1\frac{1}{4}$
3. 648	7	8	$6\frac{1}{4}$

Y.

	£	s.	d.
1. 1152 @	8	16	$2\frac{3}{4}$
2. 120	93	0	$11\frac{3}{4}$
3. 864	14	1	$8\frac{1}{4}$

Z.

	£	s.	d.
1. 80 @	18	7	$7\frac{1}{4}$
2. 100	15	18	$1\frac{1}{4}$
3. 736	2	4	$4\frac{1}{4}$

Test 1.

	£	s.	d.
1. 648 @	2	8	$7\frac{1}{2}$
2. 576	286	4	$5\frac{1}{2}$
3. 666	0	5	$4\frac{1}{4}$

Test 2.

	£	s.	d.
1. 736 @	2	4	$4\frac{1}{4}$
2. 640 @	2	14	$8\frac{3}{4}$
3. 128 @	14	6	11

PRACTICE.—Ex. IV.

A

	£	s.	d.
1. $185\frac{1}{7}$ @	2	16	$8\frac{3}{4}$
2. $108\frac{1}{3}$	5	13	0
3. $40\frac{1}{8}$	18	7	$3\frac{1}{2}$

B

	£	s.	d.
1. $13\frac{1}{11}$ @	47	13	$6\frac{3}{4}$
2. $22\frac{3}{5}$	33	1	$1\frac{1}{2}$
3. $115\frac{1}{5}$	7	4	$5\frac{3}{4}$

C

	£	s.	d.
1. $129\frac{3}{5}$ @	37	2	$7\frac{1}{4}$
2. $391\frac{1}{2}$	135	9	4
3. $33\frac{3}{5}$	18	15	$1\frac{1}{4}$

D

	£	s.	d.
1. $61\frac{1}{3}$ @	13	6	$1\frac{1}{2}$
2. $10\frac{1}{2}$	900	9	$11\frac{1}{2}$
3. $43\frac{1}{6}$	23	12	$3\frac{1}{2}$

E

	£	s.	d.
1. $86\frac{3}{4}$ @	11	16	$1\frac{3}{4}$
2. $105\frac{3}{7}$	11	7	$2\frac{1}{4}$
3. $577\frac{1}{2}$	21	12	5

F

	£	s.	d.
1. $106\frac{2}{3}$ @	4	7	$0\frac{3}{4}$
2. $1252\frac{1}{8}$	42	6	8
3. $746\frac{2}{11}$	0	16	$8\frac{3}{4}$

G

	£	s.	d.
1. $53\frac{1}{4}$ @	4	7	$0\frac{3}{4}$
2. $5\frac{1}{4}$	60	4	$2\frac{1}{4}$
3. $121\frac{1}{3}$	3	9	3

H

	£	s.	d.
1. $2937\frac{3}{5}$ @	0	10	$6\frac{1}{4}$
2. $1644\frac{1}{7}$	1001	15	$7\frac{1}{4}$
3. $13\frac{1}{2}$	1266	17	2

I

	£	s.	d.
1. $18\frac{3}{7}$ @	23	3	$10\frac{3}{4}$
2. $130\frac{1}{2}$	406	8	0
3. $218\frac{2}{5}$	2	17	$8\frac{1}{2}$

J

	£	s.	d.
1. $10491\frac{1}{7}$ @	1	9	$5\frac{1}{2}$
2. $104\frac{8}{11}$	1574	4	$6\frac{1}{4}$
3. $60\frac{6}{11}$	2	18	$10\frac{8}{4}$

K

	£	s.	d.
1. $90\frac{3}{5}$ @	15	1	$2\frac{1}{4}$
2. $66\frac{2}{3}$	22	1	$1\frac{1}{2}$
3. $388\frac{4}{5}$	4	1	$0\frac{1}{2}$

L

	£	s.	d.
1. $518\frac{3}{5}$ @	2	0	$6\frac{1}{4}$
2. $105\frac{3}{5}$	11	7	$2\frac{1}{4}$
3. $577\frac{1}{2}$	21	12	5

M

	£	s.	d.
1. $3\frac{3}{4}$ @	49	10	$6\frac{1}{4}$
2. $469\frac{1}{3}$	4	0	$6\frac{3}{4}$
3. $33\frac{6}{10}$	58	5	$1\frac{1}{4}$

N

	£	s.	d.
1. $323\frac{5}{8}$ @	2	11	$11\frac{1}{4}$
2. $10\frac{1}{2}$	900	9	$11\frac{1}{2}$
3. $61\frac{5}{7}$	16	10	$7\frac{1}{4}$

O

	£	s.	d.
1. $105\frac{1}{7}$ @	15	10	$5\frac{3}{4}$
2. $71\frac{1}{3}$	24	12	$6\frac{3}{4}$
3. $156\frac{4}{5}$	12	1	$8\frac{1}{4}$

P

	£	s.	d.
1. $288\frac{3}{4}$ @	43	4	10
2. $25\frac{5}{7}$	51	11	$5\frac{3}{4}$
3. $66\frac{2}{3}$	22	1	$1\frac{1}{2}$

Q

	£	s.	d.
1. $117\frac{9}{11}$ @	4	9	$1\frac{3}{4}$
2. $242\frac{3}{5}$	2	11	$11\frac{1}{4}$
3. $66\frac{2}{3}$	11	0	$6\frac{3}{4}$

R

	£	s.	d.
1. $1094\frac{1}{2}$ @	0	7	$7\frac{1}{4}$
2. $1252\frac{1}{8}$	42	6	8
3. $746\frac{2}{11}$	0	16	$8\frac{3}{4}$

S

		£	s.	d.
1.	$213\frac{1}{3}$ @	8	4	$2\frac{1}{2}$
2.	$285\frac{3}{7}$	0	12	$11\frac{3}{4}$
3.	$76\frac{4}{11}$	25	12	$7\frac{3}{4}$

T

		£	s.	d.
1.	$436\frac{1}{5}$ @	1	8	$10\frac{1}{2}$
2.	$66\frac{2}{3}$	11	0	$6\frac{3}{4}$
3.	$242\frac{8}{13}$	3	9	3

U

		£	s.	d.
1.	$115\frac{1}{2}$ @	7	4	$5\frac{3}{4}$
2.	$5\frac{8}{11}$	17334	19	$1\frac{3}{4}$
3.	$43\frac{1}{3}$	23	12	$3\frac{1}{2}$

V

		£	s.	d.
1.	$46\frac{4}{5}$ @	57	5	$8\frac{3}{4}$
2.	$8\frac{3}{5}$	3511	13	$11\frac{1}{4}$
3.	$129\frac{1}{3}$	37	2	$7\frac{1}{2}$

W

		£	s.	d.
1.	$2098\frac{3}{7}$ @	0	14	$8\frac{3}{4}$
2.	$230\frac{1}{3}$	715	11	$1\frac{3}{4}$
3.	$60\frac{5}{11}$	2	18	$10\frac{3}{4}$

X

		£	s.	d.
1.	$5251\frac{35}{112}$ @	0	2	$4\frac{1}{2}$
2.	$22\frac{3}{5}$	33	1	$1\frac{1}{2}$
3.	$242\frac{1}{3}$	3	9	3

Y

		£	s.	d.
1.	$12531\frac{333}{1001}$ @	4	4	$7\frac{3}{4}$
2.	$1093\frac{17}{19}$	0	11	$6\frac{1}{4}$
3.	$36\frac{9}{19\frac{1}{2}}$	20	12	4

Z

		£	s.	d.
1.	$108\frac{1}{3}$ @	5	13	0
2.	$7\frac{1}{2}$	100	16	10
3.	$115\frac{1}{3}$	7	4	$5\frac{3}{4}$

COMPOUND PRACTICE.—Ex. I.

Avoirdupois Weight.

A

	lb.	oz.	drs.		£	s.	d.	
1.	5	4	0	@	2120	10	4	per lb.
2.	17	14	0		72	10	8	„
3.	0	8	0		2678	10	4	„

B

	cwt.	qr.	lb.	oz.		£	s.	d.	
1.	0	0	1	12	@	185	4	4	per lb.
2.	0	1	4	0		392	4	$6\frac{1}{4}$	per qr.
3.	1	2	24	0		306	6	9	per cwt.

C

	cwt.	qr.	lb.	oz.		£	s.	d.	
1.	2	2	8	0	@	69	6	$8\frac{3}{4}$	per cwt.
2.	0	1	4	0		648	6	$2\frac{1}{4}$	„
3.	13	0	14	0		149	2	8	„

D

	cwt.	qr.	lb.	oz.		£	s.	d.	
1.	1	1	4	0	@	736	12	0	per lb.
2.	1	2	24	0		699	14	9	per cwt.
3.	1	2	0	0		8072	8	0	„

E

	tons	cwt.	qr.	lb.	oz.		£	s.	d.	
1.	0	2	2	8	12	@	43	4	10	per lb.
2.	2	8	0	0	0		552	11	$6\frac{3}{4}$	per ton
3.	1	2	3	12	0		1249	13	$7\frac{3}{4}$	„

F

	tons	cwt.	qr.	lb.	oz.		£	s.	d.	
1.	4	11	1	20	0	@	357	1	$0\frac{1}{4}$	pr. ton.
2.	3	14	1	4	0		466	18	$3\frac{1}{2}$	„
3.	201	2	3	12	0		9	2	7	„

G

	cwt.	qr.	lb.		£	s.	d.	
1.	8	0	16	@	102	4	0	per cwt.
2.	0	3	24		254	9	0	per qr.
3.	6	3	12		148	15	$5\frac{1}{4}$	per cwt

H

	tons.	cwt.	qr.	lb.		£	s.	d.	
1.	0	11	1	20	@	892	12	$5\frac{3}{4}$	per ton
2.	2	5	2	24		267	15	$8\frac{3}{4}$	„
3.	4	12	3	12		784	7	7	per cwt.

Troy Weight.

I

	lb.	oz.	dwts.	gr.		£	s.	d.	
1.	1	4	16	0	@	300	1	8	per lb.
2.	0	11	6	16		45	0	$1\frac{1}{2}$	per oz.
3.	2	2	13	8		22	19	$0\frac{3}{4}$	d. per oz.

J

	lb.	oz.	dwts.		£	s.	d.	
1.	1	4	0	@	561	19	$1\frac{1}{2}$	per lb
2.	2	8	0		309	1	$2\frac{1}{4}$	„
3.	1	2	8		7955	3	$0\frac{1}{4}$	„

K

	lb.	oz.	dwts.	gr.		£	s.	d.	
1.	5	9	6	16	@	300	3	2¼	per lb.
2.	0	5	6	16		344	6	0	per oz.
3.	1	4	0	0		1453	14	2¼	per lb.

L

	oz.	dwts.	gr.		£	s.	d.	
1.	5	6	16	@	8802	3	2¼	per lb.
2.	1	6	16		3609	1	1½	per oz.
3.	1	10	0		350	2	9	per oz.

M

	lb.	oz.	dwts.	gr.		£	s.	d.	
1.	19	2	8	0	@	65	0	3¾	per lb.
2.	7	2	8	0		184	3	10¼	„
3.	2	2	13	8		642	13	10½	„

N

	lb.	oz.	dwts.	gr		£	s.	d.	
1.	0	0	8	8	@	1713	17	0	per oz.
2.	10	1	6	16		83	2	0	per lb.
3.	2	4	16	0		386	6	5½	„

Apothecaries' Weight.

O

	lbs.	oz.	drs.	scr.	grs.		£	s.	d.	
1.	2	8	0	0	0	@	1804	10	6¾	pr.lb.
2.	13	7	1	1	16		37	10	1¼	„
3.	1	7	1	1	16		382	11	0½	„

P

	lbs.	oz.	drs.	scr.	grs.		£	s.	d.	
1.	2	2	5	1	0	@	321	6	11¼	pr. lb
2.	3	2	3	0	12		255	0	8¾	„
3.	1	4	0	0	0		688	11	11¼	„

Q

	lbs.	oz.	drs.	scr.	grs.		£	s.	d.	
1.		1	1	1	16	@	2681	0	1	3 pr.lb.
2.		3	1	1	16		1170	5	3¾	„
3.	2	4	6	1	4		173	7	6	„

R

	lbs.	oz.	drs.	scr.	grs.		£	s.	d.	
1.		4	6	1	4	@	1083	8	11	5½ pr.oz.
2.		11	3	0	12		54	15	0	„
3.	1	7	1	1	16		459	10	1¼	pr.lb.

S

	lbs.	oz.	drs.	scr.	grs.		£	s.	d.	
1.		5	2	2	0	@	1170	5	5¼	pr.lb.
2.	1	7	1	1	16		382	11	0½	„
3.		1	5	1	0		4370	1	2	6 pr.oz.

T

	lbs.	oz.	drs.	scr.	grs.		£	s.	d.	
1.		1	6	0	0	@	680	2	0	pr.lb.
2.	158	4	6	1	4		7	11	5½	„
3.		4	9	4	2	8	255	0	8¾	„

Time Measure.

U

	dys.	hrs.	min.		£	s.	d.	
1.	1	14	24	@	494	13	6½	per day.
2.	1	14	24		5065	6	11¾	„
3.	1	8	0		6838	4	4½	„

V

	wks.	dys.	hrs.	min.		£	s.	d.	
1.	2	2	19	12	@	287	13	11½	per wk.
2.	1	4	4	48		4440	19	5¾	„
3.	3	1	9	36		2537	13	11½	„

W

	wks.	dys.	hrs.	min.		£	s.	d.	
1.	230	2	19	12	@	44	1	1¾	pr. wk.
2.	2	2	19	12		4652	8	11½	„
3.	2	4	16	0		4567	17	2¼	„

X

	mth.	wk.	dy.	hr.	min.		£	s.	d.	
1.	1	1	2	8	0	@	522	7	7½	pr.mth
2.	4	3	1	9	36		156	1	11¾	„
3.		3	1	9	36		1030	3	11½	„

Y

	yrs.	dys.	hrs.	min.		£	s.	d.	
1.	1	121	16	0	@	390	1	9¾	pr. yr.
2.	1	24	8	0		573	16	6¾	„
3.	1	182	12	0		5	2	9½	„

Z

	yrs.	dys.	hrs.	min.		£	s.	d.	
1.	39	284	16	48	@	67	7	11	pr. yr.
2.		14	14	24		7801	15	5	„
3.	54	262	19	12		7	12	1	„

COMPOUND PRACTICE.—Ex. II.

A **Long Measure.**

	yds.	ft.	in.		£	s.	d.	
1.		2	8	@	3039	4	2¼	per foot.
2.	4	1	4		683	16	5¼	„
3.	1	0	9		832	4	0	per yard.

B

	pls.	yds.	ft.	in.		£	s.	d.	
1.	1	0	1	6	@	9277	5	3	pr. pole.
2.	1	0	1	6		1028	12	11⅜	„
3.		1	1	6		8096	10	4	per yd.

C

	pls.	yds.	ft.	in.		£	s.	d.	
1.	1	2	1	6	@	462	5	3¼	pr.pole.
2.		2	2	3		1568	18	2	„
3.	1	1	2	6		642	4	9	„

D

	pls.	yds.	ft.	in.		£	s.	d.	
1.	1	1½	0	4	@	31	16	0	per yard.
2.	4	2	0	0		74	19	5½	per pole.
3.		2	2	0		169	12	0⅜	per yd.

E

	mls.	fur.	pls.	yds.	ft.	in.		£	s.	d.	
1.		7	13	1	2	6	@	163	11	6	pr.fur.
2.	2	1	7	1	1	6		704	14	8	„
3.	1	4	32	0	0	0		837	0	8½	pr.ml

F

	mls.	fur.	pls.	yds.	ft.	in.		£	s.	d.	
1.	1	0	29	0	1	6	@	1416	10	6	pr.ml
2.	1	3	25	2	1	6		1133	4	4½	„
3.	1	2	26	3	2	0		1313	10	0	„

G **Square Measure.**

	yds.	ft.	in.		£	s.	d.	
1.	9	3	0	@	81	15	9	per yard.
2.	2	6	0		309	1	2¼	„
3.		2	36		3708	14	0	„

H

	per.	yds.	ft.	in.		£	s.	d.	
1.	1	10	0	108	@	261	3	9½	pr.prch.
2.	186	20	1	72		2	9	9	„
3.		1	3	0		439	1	9	pr. yard.

I

	acr.	rds.	per.	yd.	ft.	in.		£	s.	d.	
1.	1	2	16	0	0	0	@	287	13	11½	p.acr
2.	1	0	32	0	0	0		437	12	6	„
	roods.	per.	yds.	ft.	in.						[rood.
3.	2	26	20	1	72			258	18	6¾	per

J

	acrs.	rds.	per.	yds.		£	s.	d.	
1.	1	0	14	16½	@	686	16	8½	pr.acr.
2.	1	0	32	0		6760	10	0	„
3.		1	24	0		22816	13	6½	„

K

	a.	r.	p.	yd.	ft.	in.		£	s.	d.	
1.	2	1	24	0	0	0	@	285	3	9	pr.acr.
2.	1	2	16	0	0	0		485	17	8½	„
3.		1	10	0	108			6096	10	1½	p.per

L

	a.	r.	p.	yd.	ft.	in.		£	s.	d.	
1.	39	1	3	19	2	36	@	5	16	2¼	pr.acr.
2.		1	18	5	4	72		941	2	1¾	„
3.			1	9⅜	4	0		10	7	9	pr. yd.

M **Cubic Measure.**

	c.yds.	c.ft.	c.in.		£	s.	d.	
1.	33	9	0	@	18	7	3	per c. yd.
2.		1	864		5	2	9½	per c. ft.
3.	1	13	1536		19	19	2½	„

N

	c.yds.	c.ft.	c.in.		£	s.	d.	
1.	1	13	864	@	149	8	4	per c. yd.
2.	1	13	864		222	2	4	„
3.		6	1296		712	18	0	per c. ft.

O **Cloth Measure.**

	yds.	qrs.	nls.	in.		£	s.	d.	
1.	5	1	1	¾	@	191	5	6¾	per yd.
2.	1	1	1	¼		849	18	3	„
3.	13	2	0	0		9159	2	8	„

P

	yds.	qrs.	nls.	in.		£	s.	d.	
1.	1	1	1	¾	@	234	1	0⅜	per yd.
2.	2	2	2	1½		159	1	0	„
3.	3	1	1	⅜		163	11	6	„

Q

	qrs.	nls.	in.		£	s.	d.	
1.	4	0	0	@	312	1	6	per qr.
2.	2	2	1½		503	4	5¼	„
3.	2	2	1½		540	17	0¾	„

R

	yds.	qrs.	nls.	in.		£	s.	d.	
1.	1	1	1	¾	@	243	1	11¼	per yd.
2.	2	2	2	1½		159	1	0	„
3.	1	1	1	¾		435	6	3¾	„

S **Dry Measure.** **T**

	bshls.	pks.	glns.		£	s.	d.	
1.	0	1	1	@	20	11	2	per bshl.
2.	2	3	1		283	17	4	„
3.	0	3	0		12728	4	10	„

	loads	qrs.	bshls.		£	s.	d.	
1.	2	2	4	@	872	16	1	per load.
2.	1	2	4		24	6	1	„
3.	28	4	0		15	2	11	„

U

	qrs.	bshls.	pks.		£	s.	d.	
1.	1	6	0	@	240	1	4	per qr.
2.	3	6	0		753	16	0	per ld.
3.	2	4	0		1344	15	4	„

V

	bshls.	pks.	glns.	qts.		£	s.	d.	
1.	0	1	1	0	@	3425	5	4	pr bshl
2.	1	0	1	0		1178	16	8	„
3.	1	3	0	0		6657	12	0	pr. qr

W **Ale and Beer Measure.** **X**

	glns.	qts.	pints		£	s.	d.	
1.	4	0	1	@	0	1	10	per gln.
2.	2	2	0		0	3	7	„
3.	1	2	0		0	6	5	„

	hogs.	glns.	qts.		£	s.	d.	
1.	2	13	2	@	28	2	10	per hog.
2.	0	33	3		0	11	6	„
3.	1	27	0		57	9	9	„

Y **Wine Measure.** **Z**

	hgs.	glns.	qts.	pts.		£	s.	d.	
1.	1	21	0	0	@	588	6	9¾	pr hog.
2.	10	42	0	0		0	15	4½	„
3.	0	1	3	1		0	5	2	pr gln.

	hgs.	glns.	qts.	pts.		£	s.	d.	
1.	0	6	1	1	@	0	1	6	pr gln.
2.	0	39	1	1		1664	8	0	pr hog.
3.	5	15	3	0		2120	10	4	„

BILLS OF PARCELS.

A

Mr. FRANK HYDE. *43, Fleet Street, London, May, 24th, 1884.*

Bought of ARTHUR DIXON, Grocers.

6lbs. of Cheese at 6½d. per lb. =	0	3	1½
16lbs. of Sugar at 3½d. per lb. =	0	4	8
56lbs. of Raw Sugar at 1¾d. =	0	5	10
6lbs. of Coffee at 1s. 1¼d. =	0	6	7½
3 Hams at £2 4s. 7¾d. =	6	13	11¼
	£7	14	2¼

Bills of Parcels are accounts sent with goods to the purchasers and are made out as above.

B

Mr. Frank Hyde, *Victoria Street, Manchester, March 25th, 1884.*

Bought of James Temple, Butcher.

January 29th	3½ lbs. of Veal at 8d. per lb.	0	2	4
February 5th	4 lbs. of Beef Steak, 11½d. per lb.	0	3	9
February 12th	6 lbs. of Mutton at 8½d. and 2d. of Suet	0	4	3½
February 19th	7lbs. of Beef at 10d. per lb.....	0	5	10
„ 26th	6lbs. of Steak at 1s. 1½d. per lb.....	0	6	7½
March 4th	5 Hams at £1 6s. 3½d. each=.....	6	11	4½
		£7	14	2½

* Received March 25th, 1884.

James Temple.

Shopkeepers, having an open account with their customers, deliver their bills to them periodically as above.

* Put down when bill is paid.

C

1. 6lbs. of cheese at 6½d. per lb.
2. 16lbs. sugar at 3½d. „
3. 56lbs. of soda at 1½d. „
4. 6lbs. of butter at 1s. 1½d. per lb.
5. 1 harmonium £6 13s. 11½d.

D

1. 4 articles at £1 5s. 7½d. each.
2. 34 articles at 2½d. each.
3. 33 articles at 2⅝d. each.
4. 18 articles at 5⅝d. each.
5. 1 article at £2 19s. 5½d. each.

E

1. 3 yards of calico at 8½d. per yard.
2. ½ yard of brocade at 15s. 6½d. pr. yd.
3. 2 yards of silk at 4s. 1⅝d. per yard.
4. 66 yards of ribbon, 1⅝d.
5. 96 yards of cambric at 2s. 1½d pr.yd.

F

1. 2 suits of clothes at £11 14s. 10⅜d. per suit.
2. 27 yards of cloth at 2s. 10¾d. pr. yd.
3. 2 fancy dresses, at £21 4s. 1⅝d. each.
4. 68 yards of linen at 1s. 6½d. pr. yd.
5. 5 yards of flannel, 1s. 4½d. pr. yd.

G

1. 5 doz. slates at 5½d. each.
2. 51 arithmetics at 2½d. each.
3. 6 doz. algebras at 2s. 10d. each.
4. 3 atlases at 3s. 9½d. each.
5. ½ doz. histories at 2s. 1½d. each.

H

1. 12 dresses at £5 10s. 7⅜d. each.
2. 6 caps at 7d. each.
3. 66 yards of tape at ⅜d. per yard.
4. 40 yds. of broad tape at 1⅜d. per yd.
5. 8 yards of silk at 15s. 6½d. per yard.

I

1. 5 tables at £3 6s. 7⅜d. each.
2. 17 papers at 11½d. each.
3. 3 chairs at 5s. 9⅜d. each.
4. 2 easy chairs at 9s. 3⅜d. each.

J

1. 6 pianos at £25 5s. 1⅜d. each.
2. 2 stools at 5s. 7½d. each.
3. 6 pieces of music at 2s. 1½d. each.
4. 34 brass whistles at 4⅜d. each.
5. 10 harmoniums at 1s. 5½d. each.
6. 4 cornets at £3 16s. 1½d. each.

K

1. 3 horses at £35 3s. 10¾d. each.
2. 2 rugs at 4s. 1¾d. each.
3. 4 whips at £2 5s. 7¾d. each.
4. 96 ducks at 4s. 3½d. per couple.
5. 4 coats at £2 16s. 10¾d. each.
6. 12 rabbits at 2s. 1¼d. per couple.

L.

1. 8yds. of silk at 5s. 11¾d. per yd
2. 20yds. of ribbon at 3½d. „
3. 21yds. of satin at 6s. 2d. „
4. 15yds. of silk ribbon at 5¾d. „
5. 10yds. of calico at 10¾d. „
6. Cost of making dress 9s. 8¼d.

M.

1. 2 pianos at £49 19s. 4¼d. each.
2. 80lbs. of bride cake at 1s. 6½d. per lb.
3. 6lbs. of swiss cake at 1s. 2¾d. „
4. 96lbs. of macaroni at 1s. 8½d. „
5. 27lbs. of currant cake at 4½d. „
6. 384lbs. of seed cake at 6½d. „
7. 3doz. of pork pies at 3s. 9½d. per doz.

N.

1. 2 cows at £38 0s. 9½d. each.
2. 54 rabbits at 2s. 10¾d. per couple.
3. 2 ducks at 2s. 2¾d. each.
4. 96lbs. of salmon at 1s. 1½d. per lb.
5. 10lbs. of cod at 8½d. per lb.
6. 33 pints of shrimps at 2¾d. per pint.

O.

1. Clock for £153 2s. 2¾d.
2. 8 purses at 3s. 9½d. each.
3. 6 knives at 2s. 1½d. „
4. 4 rings at £3 5s. 7½d. each.
5. 5 spoons at 2s. 10½d. „
6. 4 watches at £3 16s. 10¼d. each.
7. 17 steel chains at 11½d. each.
8. 6 fancy chains at 2s. 11¾d. each.

P.

1. 1 Estate at £1895 0s. 11¾d.
2. 2doz. pine trees at 10s. 4¾d. each.
3. 38doz. celery plants at 4½d. per doz.
4. 64 „ pansies at 4s. 5d. „
5. 48 „ rose Trees at 6s. 3¾d „
6. 2 evergreen trees at 8s. 5¾d. each.
7. 3 pear trees at 5s. 9¾d. „
8. 2 doz. apple trees at 15s. 1¾d. each.

Q.

1. 9 articles at £8 9s. 0½d. each.
2. 6lbs. of lump sugar at 5d. per lb.
3. 2 stone of soda at 1½d. per lb.
4. 6 cheeses at 14s. 8¼d. each.
5. 4 stilton cheeses at £1 7s. 4½d. each.
6. 6lbs. of ham at 1s. 0½d. per lb.
7. 6lbs. of butter at 1s. 2¾d. „
8. 8 cases of tea at £1 0s. 9½d. per case.

R.

1. 3 gold watches at £36 12s. 4½d. each.
2. 1doz. brooches at 12s. 0¾d. „
3. 2 pairs of earrings at 4s. 1¾d. „
4. 2 silver chains at 4s. 9¾d. „
5. 3doz. silver chains at 5s. 11d. „
6. 2 rings at 5s. 7½d. each.
7. 256 purses at 11¾d. „
8. 1 silver chain at 13s. 9½d. each.

S.

1. 1doz. articles at £157 9s. 7½d. each.
2. 16yds. of brocade at 15s. 6½d. per yd.
3. 2yds. of satin at 6s. 8½d. per yard.
4. 2yds. of cloth at 7s. 5¾d. „
5. 96yds. of tweed at 3s. 2½d. „
6. 22yds. of alpaca at 9½d. „
7. 36yds. of silk at 9s. 9½d. „
8. 6yds. of lace at 3s. 1¼d. „

T.

1. 3 articles at £348 14s. 9¼d.
2. 4½doz. eggs at 10d. a doz.
3. 32 pints of treacle at 1s. 2d. per gal.
4. 1cwt. of rice at £1 7s. 1½d. per qr.
5. 6lbs. of starch at 1s. 1½d. per lb.
6. 336lbs. of sugar at £2 7s. 1½d. per. cwt
7. 28lbs. of soap at 4s. 1¾d. per stone.
8. 2 sacks of potatoes at 4s. 9¾d. per sack.

U.

1. 64 articles at £29 16s. 11¾d. each.
2. 4 suits clothes at £3 6s. 11d. pr. suit.
3. 6 pairs of stockings at 2s. 4¾d. per pair
4. A score of hats at 15s. 6¼d. each.
5. 2 bonnets at 8s. 1¾d. each.
6. 32 sheets at 10s. 8¾d. „
7. 128 silk ties at 2s. 10¾d. each.

V.

1. 1 article at £80 8s. 5¾d.
2. 8stn. of Calais sand at 6s. 1¼d. pr. stn.
3. 9lbs. of jam at 4¼d. per lb.
4. 6lbs. of wax candles at 9¼d. per lb.
5. 1 cwt. of bacon at £1 5s. 4¼d. per qr.
6. 28lbs. of onions at 3s. 0¾d. per stone.
7. 8cwt. of apples at 2s. 2¾d. „
8. 2 stone of currants at 4s. 1¾d. for 14lbs.

W.

1. 4 articles at £260 7s. 9¼d. each.
2. 2lbs of mutton at 2s. 1¾d. per lb.
3. 48lbs. of beef at 2s. 1¼d. per lb.
4. 6lbs. of beef at 1s. 1¼d. per lb.
5. 15lbs. of pork at 5¼d. per lb.
6. 23lbs. of dripping at 4½d. per lb.
7. 9 cows at £10 15s. 10¼d. each.
8. 240lbs. at 10¼d. per lb.

X.

1. 12 articles at £101 16s. 4¾d. each.
2. 5 grammars at 1s. 5¼d. each.
3. 72 desks at £14 7s. 5¼d. per doz.
4. 12doz. wall maps at £8 4s. 11d. per doz
5. 12 stools at 17s. 3d. per doz.
6. 16 Encyclopedias at 14s. 0¼d. each.
7. 8 desks at £1 11s. 7¾d. each.
8. 2 chairs at 6s. 8¾d. each.
   Less ¼d. discount.

Y.

1. 1 article at £702 13s. 5¾d. each.
2. 6lbs. of seed cake at 4¼d. per lb.
3. 6lbs. of Genoa cake at 6¾d. per lb.
4. 3lbs. of sugar biscuits at 1s. 6½d. per lb.
5. 48lbs. of bride's cake at 2s. 1¾d. „
6. 6 cases of oranges at £11 1s. 1¼d. per case.
7. 9 cases of coffee at £8 7s. 4¾d. per case
8. 2 pianos at £43 2s. 3¾d. each.

Z.

1. 2 articles at £971 3s. 1¼d. each.
2. 2yds. of silk at 6s. 8¾d. per yd.
3. 2yds. of brocade at 7s. 2¼d. per yd.
4. 48yds. of satin at 6s. 5¼d. „
5. 2 pieces of calico at 8s. 1¾d. per piece.
6. 256yds. of linen at 1s. 4¼d. per yard.
7. 128yds. of diaper at 2s. 10¼d. „

SIMPLE PROPORTION.

Find the terms which make the following Complete Proportion, or find the value of x.

A

1. $5 : 15 :: 13 : -x$
2. $x : 16 :: 103 : 4$
3. $x : 206 :: 20 : 8$
4. $13 : 78 :: 103 : x$

B

1. $x : 132 :: 51 : 11$
2. $17 : 51 :: x : 2142$
3. $x : 19 :: 6528 : 152$
4. $297 : 33 :: x : 103$

C

1. $59 : 177 :: 175 : x$
2. $318 : 53 :: x : 104$
3. $91 : x :: 47 : 376$
4. $116 : 29 :: x\ 208$

Find Fourth Proportionate in the following.

D

1. 3 : 6 :: £12
2. 4 : 8 :: £18
3. 5 : 20 :: £12
4. 2 : 6 :: £170

E

1. 3 : 57 :: £32 17s. 0d.
2. 17 : 68 :: £187 6s. 4½d.
3. 13 : 52 :: £210 1s. 2d.
4. 3 : 15 :: £190 17s. 3d.

F

1. 8 : 2 :: 16T. 6C. 2Q. 8lb.
2. 19 : 76 :: 1yd. 1ft. 3in.
3. 13 : 65 :: 1 day 8h. 28m. 54s.
4. 789 : 2367 :: 2yrs. 126d. 15h.

G

	£	s.	d.		£	s.	d.	
1.	65719	13	9	:	49508	16	7½	::900
2.	187	2	9¾	:	158	7	7¾	::885
3.	114	14	6	:	611	17	4	::156
4.	3	7	3	:	30	5	3	::103

H

	£	s.	d.		£	s.	d.		£	s.	d.
1.	3	6	8	:	6	13	4	::	3	1	9
	T.	C.	lb.		T.	C.	lb.		£	s.	d.
2.	16	14	32	:	1	17	16	::	64	4	0
	£	s.	d.		£	s.	d.		T.	C.	lb.
3.	2	2	6	:	8	10	0	::	2	4	6
	Y.	F.	IN.		Y.	F.	IN.		Y.	F.	IN.
4.	3	1	10½	:	14	1	6	::	2	1	2

I

1. If 3 sheep are worth £12, find the price of 6?
2. If 4 pigs cost £18, find the worth of 8 pigs?
3. If it takes £107 to buy 4 horses, how much will it take to buy 16 of the same kind?
4. If £170 be paid for 2 horses, find the value of six horses.

J

1. If for £13 five boys can be clothed, what will it cost to clothe 15 boys?
2. If 20 tons of coal cost £12, how much will eighty tons cost?
3. If a farmer sells 59 sheep for £175, how much would he get by selling 177 at the same rate?
4. If a gentleman buys an estate of 900 acres for £49508 16s. 7½, how many acres of the same kind would he get for £65719 13s. 9d.?

K

1. If sixty pins cost a halfpenny, how much must be paid for 3,600 pins?
2. How much will 7 yds. of calico cost, if twenty-four cost 12 shillings?
3. If seven shillings be paid for twelve brass whistles, find the cost of eight.
4. If 2 dozen pigeons cost 14s., find the value of half a score.

L

1. If 48 boys eat 266 buns at a tea party, how many buns would be required for 144 boys?
2. How many aprons ought 112 women to make daily, if 14 women make 107 per day?
3. If 76 boys work 3708 sums correctly in one week, how many sums, at the same rate, ought 19 boys to get right in the same time?
4. If a road 7350 yds. long can be paved by 119 men in one week, how many yards ought 17 of them to pave in the same time?

M

1. If for £80 I can buy 112 hams, how many should I get for £20?
2. If 27 sheep are worth 9 cows, how many cows are 117 sheep worth?
3. If a quantity of food would last 23 men 1904 days, how long would it last 92 men?
4. If a merchant gains £3605 in 91 weeks, what sum will he have gained in 13 weeks?

N

1. If it requires the milk of 564 cows to make 1998 lb. of butter, how many lbs. ought to be made from the milk of 188 cows?
2. If 203 men are 112 days in building a ship, how many days would it take 29 men to build it?
3. When a ship sails at the rate of 7 miles in 56 minutes, how many minutes would it be in sailing 104 miles?
4. If a train completes a journey of 2754 miles in 99 hours, how many miles would it have travelled in 33 hours?

O

1. By travelling 12 hours a day a person finished a journey in 13 days how long would he have been had he walked only four hours daily?
2. If 162 tons of timber cost £214, what should be paid for 324 tons?
3. If a wall 2120 yds. long was made by 56 men in one month, what length of a wall ought 14 men to make in the same time?
4. If 180 inches and 30 inches be the respective circumferences of the large and small wheels of a bicycle, how many times would the small wheel turn round during the time that the big one turns 109 times?

P

1. If 100lbs. of cheese cost £3 1s. 9d., what will 200lbs. cost?
2. If the wages of 117 men amount to £64 4s. 0d., how much ought 13 men to receive?
3. If £1 0s. 7d. be paid for 17lbs. butter, how much will 136lbs. cost?
4. £2 6s. 1½d. was paid for 19 yards of cloth. Find the value of 76 yards of the same kind.

Q

1. If £95 12s. 1d. be paid for 13 milch cows, how many can be bought for £3897 14s. 2d.?
2. If for £30 19s. 9d. I can buy 37 yds. of brocade, how many yards ought I to get for £517 11s. 6d.?
3. If the wages of 48 men for one month be £304 7s., how many men ought to be employed if £5015 8s. 8½d. are paid in wages for the same time?
4. If 1000 horses are valued at £29200, how many would be sold for £26163 4s.?

R

1. If 93lbs. of soap cost £102 0s. 3½d., how much will 1116lbs. cost?
2. If £987 17s. 6d. be paid for repairing a road 6 miles 6 furlongs 33 poles 2½ yds. long, what length of road ought to be repaired for £1975 15s.?
3. If 52 tons 17cwt. 16lbs. of provisions last a ship's crew for 143 weeks 2 days 15 hours, how long would 5 tons 5cwt. 80lbs. last on board the same ship?
4. If a number of cattle consume 382 loads 3qrs. 5 bushels 1 peck of oats in 2 weeks 3 days, what quantity would be required to last the same cattle 9 weeks 5 days?

S

1. If a chimney 100 feet high casts a shadow of 350 feet, what is the height of a pole whose shadow at the same time was 84 feet?

2. If 9 cows are worth 57 sheep and 19 sheep worth two horses, how many horses are 54 cows worth?

3. In how many weeks could 12 men build a ship which would take 52 men 1 year and 44 weeks to build?

4. If 5 men received £130 0s. 7½d. for 87 hours' work, how much would they get for 348 hours' work?

T

1. A person spends £24 5s. 9½d. weekly, and saves £6 3s. 1d. fortnightly; what is his daily income?

2. If a person during his holidays spends £7 14s. 9½d. in one week, how much would he spend if his holidays began on the 1st of July and ended on the 11th of August?

3. How many yards of calico at 7½d. per yard must be given in exchange for 10708 yards of silk at 3s. 0½d. per yard?

4. Supposing there are sufficient provisions in Gibraltar to last the garrison (5616 persons) 8 months, how many must be sent away in order to make them last 9 months.

U

1. If a man's income annually is £524 16s. 0⅔d. after having paid an income tax of 9d. in the £, what is his gross income?

2. If a gentleman's estate be worth £720 4s., and the land be assessed at 2s. 6d. in the £, what is his clear annual income?

3. A farmer sold a number of geese and ducks for £1000, of this amount he received £818 for 1636 geese; he got four times as much for a couple of geese as he did for a couple of ducks. How many couple of ducks did he sell?

4. If a bankrupt paying 17s. 6d. in the £, pays his creditors £749 5s. 6½d., what were his debts?

V

1. If a bankrupt pays 5s. 3d. in the £, and failed to the amount of £5548, what amount does he pay?

2. If a bankrupt pays his creditors £257 11s., at the rate of 3s. 4d. in the £, what was the amount of his debt?

3. A merchant, whose debts are £1400, pays £1140 8s. 4d.; how much did he pay in the £.

4. If England entered into a war January 1st, 1884, and the garrison of Gibraltar, consisting of 6424 soldiers, had provisions enough to last to January 1st, 1887, how many days longer would the provisions last if half the garrison left on the 30th of July, 1884.

W

1. If £386 8s. gain £91 17s. 6d. in 6 years, what sum ought to be gained by £55 4s. in the same time.

2. If £5 0s. 7½d. be the annual interest on £6095 16s. 8d., what will be the yearly interest on £870 16s. 8d.

3. If 10920 articles can be made by a manufacturer out of 36lbs. 3oz. 15dwts., what number can be made out of 5lbs. 2oz. 5dwts.

4. If a train runs 67 miles 16 poles in 2 hours 24 minutes, how many miles, furlongs, and poles will it run in 36 minutes at same rate?

X

4. What is the value of four 4lb. loaves, when wheat is sold at £3 5s. 4d. per quarter (a peck of flour weighing 14lbs.)

2. How many watches are 117 clocks worth if 27 watches are worth 9 clocks?

3. How many loaves of bread at 6¾d. each ought to be given in exchange for 18lbs. of butter at 1s. 6d. per lb.

4. If I bought 107 articles for £116 5s., how many ought I to get for five times that amount?

Y

1. A clock that gains twenty minutes per hour is set exactly right; in how many hours will it exactly right again?

2. I have a watch that keeps correct time, and a timepiece that gains. I put them both together at 1 p.m., and at 5 p.m. by the watch, it is 6 p.m. by the timepiece; in how many hours shall I find them together again?

3. One thousand and thirty soldiers were provisioned for thirty days, and being joined by a number of others the food lasted only for twenty days. How many joined them?

4. If the carriage of 24 tons 2cwt. 3qrs. 12lb. for 100 miles be £82 19s. 8d., what will it cost to have 1 ton 17cwt. 16lb. carried the same distance?

Z

1. How far should 2 tons 14cwt. 1qr. 4lb. be carried for £68 if 17cwt. 16lb. be carried 2033 miles for the same money?

2. If 885 geese can be bought for £187 2s. 9¾d., how many geese can be bought for £158 7s. 7¾d.

3. If the rent of 156 acres be £114 14s. 6d., how many acres of same quality can be rented for £611 17s. 4d.?

4. If the shadow of a man, whose height is 6ft., be 18ft. long, how many feet high is a chimney whose shadow at the same time is 4 furlongs 8 poles 3 yards long?

EXAMINATIONS. [SECOND QUARTER

A

1. Find the G. C. M. of 384, 432, and 648.
2. 1614465 articles at ½d. each.
3. 2736 articles at 3s. 0½d. each.
4. 288 articles at £1 19s. 11½d. each.
5. 183$\frac{3}{7}$ articles at £353 17s. 4¼d. each.
6. Find the value of 1qr. 20lbs. at £17 19s. 9½d. per cwt.
7. If £107 pays 14 men, how much ought 112 men to get?

B

1. Find the L. C. M. of 13, 8, 5, 52, and 4.
2. 199728 articles at $\frac{3}{4}$d. each.
3. 1008 articles at 15s. $1\frac{3}{4}$d. each.
4. 1728 articles at £4 13s. $10\frac{3}{4}$d. each.
5. $232\frac{8}{13}$ articles at £418 4s. $1\frac{3}{4}$d. each.
6. Find the value of 6cwt. 3qrs. 12lbs. at £148 15s. $4\frac{1}{4}$d. per cwt.
7. If 29 horses eat 297 bushels of oats monthly, how many bushels will it take to serve 116 horses for the same length of time?

C

1. 44576 articles at $1\frac{1}{4}$d. each.
2. 1980 articles at 3s. $4\frac{3}{4}$d. each.
3. 1152 articles at £41 0s. $9\frac{1}{4}$d. each.
4. $12531\frac{3}{4}\frac{3}{0}\frac{9}{6}\frac{9}{3}$ articles at £4 4s. $7\frac{3}{4}$d. each.
5. Find the cost of 2 tons 5cwt. 2qrs. 24lbs. at £267 15s. $8\frac{3}{4}$d. per ton.
6. A ship, having 54 persons on board, had enough food to last 672 days. On leaving the docks, however, 6 were drowned. How many days would the food then last?
7. Reduce to whole number $\frac{5}{6}^{5}$.

D

1. Reduce to lowest terms $\frac{4}{4}\frac{7}{8}\frac{7}{0}\frac{}{0}$.
2. 11095 articles at $1\frac{1}{2}$d. each.
3. 14104 articles at 1s. $0\frac{3}{4}$d. each.
4. 384 articles at £225 3s. $9\frac{1}{4}$d. each.
5. $370\frac{3}{7}$ articles at £24 15s. $4\frac{3}{4}$d. each.
6. Find the worth of 1qr. 24lbs. 8oz. at £581 12s. per quarter.
7. If the carriage of 83 tons for 20 miles is £37 7s. $5\frac{1}{4}$d., what is the carriage of 249 tons for the same distance?

E

1. Reduce to lowest terms $\frac{4}{1}\frac{2}{5}\frac{7}{2}\frac{}{8}$.
2. 104688 articles at $1\frac{3}{4}$d. each.
3. 1456 articles at 11s. $6\frac{1}{2}$d. each.
4. 2592 articles at £3 10s. $9\frac{1}{4}$d. each.
5. $136\frac{8}{13}$ articles at £74 11s. $1\frac{1}{4}$d. each.
6. Find the value of 2 miles 20 poles at £72 14s. per furlong.
7. If 237 sheep are worth 79 cows, how many cows are 3708 sheep worth?

F

1. Add up $2\frac{1}{4} + 3\frac{1}{8} + 4\frac{1}{8} + 2\frac{9}{32}$.
2. 115740 articles at $2\frac{3}{4}$d. each.
3. 17645 articles at 1s. 8d. each.
4. 1296 articles at £1 4s. $3\frac{3}{4}$d. each.
5. $3225\frac{8}{9}$ articles at £5 0s. $1\frac{1}{4}$d. each.
6. Find the value of 1 mile 2 furlongs 26 poles 3 yards 2 feet at £1313 10s. per mile.
7. If a chimney 87 feet high casts a shadow 1566 feet long, how many feet long will be the shadow of a chimney 103 feet high?

G

1. Add $2\frac{4}{7} + 2\frac{4}{5} + 3\frac{1}{2} + \frac{1}{1\,8} + \frac{5}{4\,2}$.
2. 49132 articles at $4\frac{3}{4}$d. each.
3. 3528 articles at 6s. $1\frac{1}{2}$d. each.
4. 528 articles at £2 5s. $5\frac{1}{4}$d. each.
5. $525\frac{3}{5\,2}$ articles at £23 0s. $5\frac{3}{4}$d. each.
6. Find the cost of 11b. 1oz. 10 dwts. at £1178 16s. 8d. per lb.
7. If 3qrs. 7lbs. cost 2s. $4\frac{3}{4}$d., what will be the cost of 4cwt. 3qrs. 14lbs.?

H

1. Add $1\frac{1}{8} + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{6}$.
2. 60496 articles at $1\frac{1}{4}$d. each.
3. 5472 articles at 1s. $6\frac{1}{2}$d. each.
4. 1044 articles at £50 16s. each.
5. $242\frac{3}{8}$ articles at £2 11s. $11\frac{1}{4}$d. each.
6. Find the value of 4tons 12cwt. 3qrs. 12lbs. at £784 7s. 7d. per cwt.
7. If 13 men earn £210 1s. 2d., what ought 52 men to earn?

I

1. From $12\frac{4}{5}$ take $5\frac{1}{1\,0}$.
2. 88768 articles at $2\frac{1}{4}$d. each.
3. 1296 articles at 15s. $1\frac{3}{4}$d. each.
4. 2448 articles at £4 2s. $6\frac{1}{4}$d. each.
5. $105\frac{3}{4}$ articles at £11 7s. $2\frac{1}{4}$d. each.
6. Find the worth of 11b. 2oz. 3drs. 0scr. 12grs. at £1020 2s. 11d. per lb.
7. If 3 stone of sugar cost £1 12s. $9\frac{3}{4}$d., find the cost of 3cwt.

J

1. From $983\frac{1}{2}$ take $65\frac{5}{1\,2}$.
2. 69792 articles at $3\frac{3}{4}$d. each.
3. 1584 articles at 15s. $1\frac{3}{4}$d. each.
4. 1728 articles at £7 0s. $1\frac{3}{4}$d. each.
5. $422\frac{2\,3}{3\,5}$ articles at £31 0s. $7\frac{3}{4}$d. each.
6. Find the value of 13 cubic yards 9 cubic feet at £107 2s. $2\frac{3}{4}$d. per cubic yard.
7. If 1 acre 1 rood 11 perches $14\frac{1}{4}$ yards of land can be bought for £131 5s. 9d., find the value of 15 acres 3 roods 17 perches $19\frac{3}{4}$ yards.

K

1. Take $9\frac{3}{8}$ from $40\frac{1}{8}$.
2. 28808 articles at $3\frac{1}{2}$d. each.
3. 400896 articles at 2s. $7\frac{3}{4}$d. each.
4. 2016 articles at £32 3s. $4\frac{3}{4}$d. each.
5. $213\frac{9}{1\,1}$ articles at £353 17s. $4\frac{1}{4}$d.
6. Find the worth of 2lbs. 8oz. at £306 0s. $10\frac{1}{2}$d. per lb.
7. If one ton eight cwt. one quarter thirteen lbs. of material cost £1 0s. $3\frac{1}{4}$d., what quantity can be bought for £7 1s. $10\frac{3}{4}$d.?

L

1. Reduce to an improper fraction $10100\frac{1}{10}$.
2. 510440 articles at $5\frac{1}{4}$d. each.
3. 184512 articles at 1s. $3\frac{3}{4}$d. each.
4. 13104 articles at £1 0s. $0\frac{1}{4}$d. each.
5. $201\frac{3}{8}$ articles at £715 11s. $1\frac{3}{4}$d. each.
6. 2lbs. 4oz. 16dwts. at £6 7s. 6d. per lb.
7. If a man began work on the 1st of January, 1884, at a yearly salary of £81 3s. 4d.. how much ought he to receive if he left on the night of March 13th, 1884.

M.

1. Add $\frac{1}{2}+1\frac{1}{2}+\frac{1}{2}$.
2. 15328 articles at $5\frac{1}{2}$d. each.
3. 2240 articles at 4s. $1\frac{3}{4}$d. each.
4. 13824 articles at £3 16s. $8\frac{3}{4}$d. each.
5. $218\frac{3}{8}$ articles at £2 17s. $8\frac{1}{2}$d. each.
6. 1 furlong 18 poles 1yd. at £534 9s. $5\frac{3}{4}$d. per furlong.
7. If the interest on £134 3s. 11d. be $5\frac{3}{4}$d. per day, what ought to be the daily interest on £2415 10s. 6d.

N.

1. Subtract $4\frac{9}{10}$ from $12\frac{1}{2}$.
2. 34064 articles at $5\frac{3}{4}$d. each.
3. 1296 articles at 15s. $1\frac{3}{4}$d. each.
4. 13824 articles at £7 13s. $5\frac{1}{2}$d. each.
5. $19\frac{1}{8}$ articles at £5838 2s. $7\frac{1}{4}$d. each.
6. 1 ton 14cwt. 32lbs. at £714 2s. $0\frac{1}{2}$d. per ton.
7. If a man owes £84 and has only £56 10s. 6d. to pay with, how much in the £ can he pay.

O.

1. Reduce to an improper fraction $1040\frac{3}{4}$.
2. 23504 articles at $6\frac{1}{4}$d. each.
3. 1075720 articles at 1s. $4\frac{1}{4}$d. each.
4. 384 articles at £225 3s. $9\frac{1}{2}$d.
5. $10\frac{1}{2}$ articles at £900 9s. $11\frac{1}{2}$d. each.
6. 1lb. 4oz. at £7 14s. 6d. per lb.
7. The provisions in a fortress will last the garrison of 89 men for 10197 days, how many days will they last if 712 more persons are received into the fortress.

P.

1. Find the G.C.M. of 41856, 47088 and 3270.
2. 2689300 articles at $6\frac{1}{2}$d. each.
3. 5472 articles at 3s. $0\frac{1}{2}$d. each.
4. 3024 articles at £32 3s. $4\frac{3}{4}$d.
5. $235\frac{7}{11}$ articles at £43 3s. $3\frac{1}{4}$d.
6. 1hog. 31 galls. 2qts. of common wine at 7s. $6\frac{1}{2}$d. per hog.
7. If 127 horses eat 508 bushels of oats monthly, how many bushels will it take to serve 320 horses for the same time.

Q.

1. Find the G.C.M. of 2080 and 2912.
2. 18672 articles at $6\frac{3}{4}$d. each.
3. 11632 articles at 1s. $1\frac{1}{4}$d. each.
4. 408 articles at £1 16s. $8\frac{3}{4}$d. each.
5. $460\frac{1}{8}$ articles £17 13s. $10\frac{1}{4}$d. each.
6. 1hog. 3lgalls. 2qts. of port wine at £64 15s. 0d$\frac{1}{2}$. per hog + $1\frac{1}{2}$d. for glass of beer.
7. If 356 horses eat 89 bushels of oats daily, how many bushels will it take to serve 4280 horses per day.

R

1. $2\frac{1}{3} + 2\frac{1}{4} + 2\frac{3}{4} - 1\frac{5}{12}$.
2. 24202 articles at $7\frac{1}{8}$ each.
3. 2912 at 5s. $9\frac{1}{4}$d. each.
4. 864 articles at £10 12s. $3\frac{3}{4}$d. each.
5. $86\frac{2}{5}$ at £11 16s. $1\frac{3}{4}$d. each.
6. 1 week $3\frac{1}{2}$ days at £7 11s. weekly.
7. If 692 persons receive 4033 half crowns for their weekly wages. what amount ought 173 persons to receive. (Give answer in £ s. d.)

S

1. $80\frac{2}{5} + 460\frac{3}{7} - 198\frac{1}{2}$.
2. 12724 at 8d. each.
3. 133632 articles at 7s. $11\frac{1}{4}$d. each.
4. 576 articles at £10 12s. $3\frac{3}{4}$d. each.
5. $114\frac{9}{12}\frac{4}{5}$ articles at £6 8s. $1\frac{1}{2}$d. each.
6. 1 ton 14 cwt. 1 qr. 4lbs. at £494 16s. $6\frac{1}{2}$d. per ton.
7. If £4 9s. $8\frac{3}{4}$d. buy 109 yards of silk, how many yards can be bought for £40 7s. $6\frac{3}{4}$d.

T

1. Find the L. C. M. of 11, 8, 13, and 88.
2. 363230 articles at $8\frac{1}{4}$d. each.
3. 1980 articles at 13s. $4\frac{3}{4}$d. each.
4. 80 articles at £18 7s. $7\frac{1}{2}$d. each.
5. $388\frac{1}{4}$ articles at £4 1 $0\frac{1}{2}$d. each.
6. Find the value of 1 mile 3 furlongs 25 poles 2 yards 1 foot 6 inches at £1133 4s. $4\frac{1}{4}$d. per mile.
7. Find the weight of sugar I can get for £404 3s. 7d. if I get 51 tons 15 cwt. 3 qrs. 19lb. 8 oz. for £1212 10s. 9d.

U

1. Find the G. C. M. of 1020 and 6630.
2. 16848 articles at $9\frac{3}{4}$d. each.
3. 1008 articles at 15s. $1\frac{3}{4}$d. each.
4. 192 articles at £450 7s. $6\frac{1}{2}$d. each.
5. $274\frac{9}{11}$ articles at £353 17s. $4\frac{1}{4}$d.
6. 20 tons 11 cwt. 1 qr. 20lbs. at £52 10s. $5\frac{1}{4}$d. per ton.
7. If the simple interest on £2059 7s. 11d. comes to £560 11s. $6\frac{3}{4}$d. for 6 years, what interest ought to be received for the loan of £411 17s. 7d. for the same time, at the same rate.

V

1. Subtract $5\frac{4}{15}$ from $15\frac{3}{15}$.
2. 254462 articles at $10\frac{1}{2}$d. each.
3. 17032 articles at 1s. $5\frac{1}{2}$d. each.
4. 156 articles at £84 1s. 9d. each.
5. $201\frac{3}{4}$ articles at £715 11s. $1\frac{3}{4}$d.
6. 1 year $121\frac{3}{4}$ days at £1170 5s. $6\frac{3}{4}$d. per year.
7. If the yearly tax on £33 12s. 9d. be £2 0s. $9\frac{1}{2}$d. ; how much will it be on £269 2s.

W

1. 255220 articles at $10\frac{1}{2}$d. each.
2. 6655 articles at 3s. $10\frac{3}{4}$d. each.
3. 180 articles at £7 7s. $4\frac{1}{4}$d. each.
4. $66\frac{2}{3}$ at £22 1s. $1\frac{1}{2}$d. each.
5. Find the L. C. M. of 5. 3. 153, 2, 255 and 765.
6. Find the cost of 4 tons 11 cwt, 1 qr. 20 lb. at £357 1s. $0\frac{1}{4}$d. per ton.
7. If 103 loaves of bread are required to serve 87 soldiers weekly, how many loaves would be required to serve 1479 soldiers for the same time.

X.

1. Find the L.C.M. of 4, 9, 10, 15, 21, 18, and 20.
2. 28292 articles at $11\frac{1}{4}$d. each.
3. 24 articles at 11s. $10\frac{3}{4}$d. each.
4. 15120 articles at £1 0s. $0\frac{1}{4}$d. each.
5. $121\frac{3}{8}$ articles at £132 10s. $1\frac{1}{4}$d. each.
6. 9oz. 12dwts. at £2167 16s, $4\frac{1}{4}$d. per lb.
7. If a servant's wages are £30 17s. $5\frac{1}{4}$d. yearly, how much ought he to receive from January 1st, 1882 to December 30th, 1887.

Y.

1. Reduce to lowest terms $\frac{1}{2}\frac{2}{3}\frac{3}{4}\frac{4}{5}\frac{5}{6}$.
2. 17032 articles at $11\frac{1}{2}$d. each.
3. 64 articles at 2s. $10\frac{3}{4}$d. each.
4. 1728 articles at £5 17s. $0\frac{1}{4}$d. each.
5. $105\frac{3}{4}$ at £11 7s. $2\frac{1}{4}$d. each.
6. Find the value of 2cwt. 2qrs. 8lbs. 12oz. at £43 4s. 10d. per lb. (avoidupois).
7. If the daily cost of 9373 persons is £588 17s. $7\frac{3}{4}$d., how many persons will £84 2s. $6\frac{1}{4}$d. keep.

Z.

1. Take $52\frac{3}{5}$ from $901\frac{3}{5}$.
2. 32099 articles at 7d. each.
3. 4608 articles at 4s. $7\frac{3}{4}$d. each.
4. 264 articles at £4 10s. $10\frac{1}{2}$d.
5. $577\frac{1}{2}$ articles at £21 12s. 5d. each.
6. 3 c. yds. 20 c. ft. 432 c. inches at £353 13s. per cubic yd.
7. What weight of goods should be carried 115 miles for the same sum as 71 tons 2cwt. 2qrs. 26lbs. 14oz. are carried 23 miles.

Test 1

1. $156\frac{1}{4}+130\frac{3}{4}+70\frac{1}{4}$.
2. 10758 at $7\frac{1}{2}$d. each.
3. 7008 at 1s. $2\frac{1}{4}$d. each.
4. 13824 at £3 16s. $8\frac{3}{4}$d. each.
5. $13\frac{1}{11}$ at £47 13s. $6\frac{3}{4}$d.
6. 1lb. 7oz. 1 dram 1 scruple 16 grains at £494 13s. $6\frac{1}{2}$d. per lb.
7. If 2 tons 4 cwt. 15lbs. can be bought for £2 2s. 6d., what weight of same material can be bought for £8 10s.

PROBLEMS. THIRD QUARTER.

A

1. What is the cost of one hundred and seventy four thousand seven hundred and sixty-one apples at a penny each?
2. Find the worth of eighty-eight thousand seven hundred and sixty-eight lunch buns at twopence farthing each.
3. What is the value of forty-nine thousand one hundred and thirty-two lbs. of candles at $4\frac{3}{4}$d. per lb.?
4. Find the value of 69792 yards of calico at threepence three farthings per yard.

B

1. What is the worth of thirty-two lamps at 10s. $1\frac{3}{4}$d. each?
2. Find the total cost of 666 lbs. of tea at 4s. $0\frac{1}{4}$d., and the same weight of coffee at 1s. 4d. per lb.
3. At one shilling and tenpence farthing each, find the value of 1998 chairs.
4. Find the cost of twenty-four articles at 1d. less than 16s. $2\frac{3}{4}$d. each.

C

1. Find the value of twenty score of sheep at £3 13s. $6\frac{1}{4}$d. per sheep.
2. How much will eight hundred and sixty-four coats cost at one pound fifteen shillings and ninepence farthing each?
3. At £143 2s. $2\frac{1}{4}$d. each, what is the cost of one thousand one hundred and fifty-two carriages?
4. Find the value of 52 horses at £33 7s. $0\frac{1}{4}$d. each.

D

1. How much must I pay for $108\frac{1}{8}$ pieces of silk at £5 13s. 0d. per piece?
2. How much shall I have to pay for 66 horses and 2 cows, if 3 cows are worth one horse, at £11 0s. $6\frac{3}{4}$d. per horse?
3. Find the cost of 115 cows and 1 sheep (5 sheep are worth one cow) at £7 4s. $5\frac{3}{4}$d. per cow.
4. Find the G.C.M. of 3744 and 2808.

E

1. Find the value of 4tons 11cwt. 1qr. 20lbs. of sugar at £357 2s. 0½d. per ton.
2. Find the value of 87 horses if 29 cost £57 14s. 9¾d.
3. What is the worth of 5oz. 6dwts. 16grs. at £344 6s. 0d. per oz.
4. Find the cost of 13cwt. 1stone at £149 2s. 8d. per cwt.

F

1. If a man's wages amount to £547 13s. 4½d. for 91 weeks, how much does he receive quarterly (13 weeks one quarter)?
2. A man gained £140 16s. 7d. by selling 576 tons of coal for £973 0s. 7d., how much did he pay for the coal?
3. A merchant gained £59 7s. 6d. on the sale of 500 tons of coal which he sold for £300, how much per ton did it cost him?
4. If in the parishes of Ebberston and Allerston, in Yorkshire, there are 1440 persons, 25 out of every hundred live in Allerston, how many live in Ebberston?

G

1. A and B bought a horse for nine guineas; after spending eleven shillings in food for it they sold it for 10 guineas; if A paid £6 10s. 0d. of the cost, how much of the profit ought B to receive?
2. If a person be paid at the rate of 6½d. per hour for 60 hours a week and 9½d. per hour overtime; if he makes 2½ hours overtime daily for 12 days, what wages ought he to receive for a fortnight (6 days per week)?
3. C and D bought a horse for £119 11s. 8d. and gained 11s. 11½d. by selling it again, how much of the profit ought each to receive if C paid £58 7s. 8d. of the purchase money and D the remainder?
4. Find the cost of 47 yards of silk, if 517 yards cost £84 16s. 0¾d.

H

1. Find the cost of 558 articles if 93 cost £7 14s. 9½d.
2. A merchant's capital on January 1st, 1883, was £400; on March 25th he increased his capital one tenth; again on June 25th he increased it one tenth; and likewise on the 29th of September he increased it one tenth; his profits during the last quarter were £63 2s. 0d. which he added to his capital for the next year, what capital had he then at the beginning of 1884?
3. A, B, and C agree to make a yatch at 6s. 4¾d. per day each; A works 73 days; B works 67 days; and C 58 days; how much was paid for the making of the yatch?
4. A B and C are partners, having stock to the value of £306, of which A contributed £86 5s. 0d., B £103 10s. 0d, and C £116 5s. 0d. If their daily profits amount to £1 5s. 6d., how much ought each to receive of the profits respectively?

I

1. How many men in 171 days can do the same amount of work as 117 men did from the morning of the 16th of May to the evening of July 11?

2. A man having property worth six times £92 8s. 3¾d., gave the half of £88 16 11d. to his nephew, and the remainder to his son. How much did they receive respectively?

3. If I bought 2cwt. 3qrs. 14lbs. of sugar at £2 3s. 4d. per cwt., and sold half of it at £2 per cwt., and the other half at 5½d. per lb., how much did I gain or lose if I also paid 2s. 9½d. for the carriage of it?

4. If a bankrupt pays £247 8s. 3d. altogether, at the rate of 6s. 8d. in the pound, what were his debts?

J

1. If 9cwt. 3qrs, 5lbs. of bacon cost one penny less than thirty-two pounds, find the cost of 8cwt. 2qrs. 8lbs.?

2. The total wages of A and B are £9 4s. 5¼d. A works 11 hours a day and 6 days a week, B works five days for 7½, 8½, 9½, 10½, and 11½ hours respectively. What amount does B get if he receives one shilling more than his proper share?

3. Nine persons are employed in building a house, three of the men work nine hours a day, 3 ten hours per day, and the remainder 8 hours. Find the proper share of a man who worked ten hours a day if they finish the house in 12 days and receive £35 8s. 9d. for their labour.

4. A grocer mixes 84 bushels of wheat at £5 2s. 0d. per quarter with 6qrs. 2pecks at 96 shillings a quarter, gaining thereby £3 9s. 6d., how much per quarter did he get for it?

K

1. A farmer bought two score pigs at £2 7s. 9d. per pig, and sold them at a profit of one shilling in the pound; he invested the proceeds in sheep at £3 11s. 7½d. each, how many sheep did he get?

2. The ages of Charles and Daniel are as 3 to 4, Charles is 27 years of age, how old is Daniel?

3. How long would it take me to travel 120 miles if I walk at 4 miles an hour for 2½ miles, by bicycle 14½ miles at the rate of 10 miles an hour, and the rest of the journey by railway at 36 miles an hour, if it also takes me six seconds to get from the bicycle into the train?

4. Divide one hundred and fifteen pounds ten shillings among five men and six women giving to each man thrice as much as a woman. Find a woman's share.

L

1. A tea merchant made a profit of thirty-one shillings and threepence by buying tea at fourteen pounds per cwt. and selling it at 2¼d. per oz., how much did he sell?

2. A gentleman has £355 10s. 0d. remaining after having paid an income tax of 3d. in the £. Find his income?

3. If sixpence per mile be charged for the hour's journey of a car, the wheel of which is 10ft. 1in. in circumference and which makes twelve revolutions in ten seconds, find the cost of the journey.

4. If four miles of twine are made by seven men and four boys, and each man makes 700 yards, how much does each boy make?

M

1. A man gave twenty guineas nine florins and two fourpenny pieces for fourteen calves, three of which afterwards died. At how much each must he sell the rest in order to gain 38 shillings by his bargain?

2. If a pound of tea be equal in value to 50 oranges, and three score oranges be worth four score and a half of apples, what is the worth of one lb. of tea if apples are a halfpenny each?

3. What is the worth of $106\frac{2}{3}$ yards of very good brocade at £4 7s. $0\frac{3}{4}$d per yard?

4. How far ought 3cwt. 2qrs. to be carried for £5 if 7 tons 17cwt. 2qrs. are carried 13 miles for the same amount?

N

1. If the total receipts of the Cunard Steamship Company amount to £596771 6s. 11d. annually (they carried 9876 passengers to other countries at an average cost of £53 19s. $7\frac{3}{4}$d.) What amount did they receive from other sources?

2. If the income of the White Star Company equals £4240294 7s. $9\frac{3}{4}$d. for the year 1883 (they take 90060 passengers at an average cost of £38 16s. $9\frac{1}{4}$d.) what amount do they get from other sources?

3. If a railway company makes £555621 9s. $7\frac{1}{4}$d. yearly by running passenger and luggage trains (they run 4911 passenger trains at an average rate of £95 13s. $10\frac{3}{4}$d. each) how much do they make by their luggage trains?

4. A man having £4323666 7s. 4d. buys an estate of 5678 acres at a cost of £594 18s. $11\frac{3}{4}$d. per acre, and puts the remainder in the bank. What amount has he in the bank?

O

1. A draper sells $\frac{1}{8}$ of a yard from a piece which was $4\frac{1}{2}$ yards long. What length has he left?

2. A person sells $3\frac{3}{4}$ of his stock off out of his $9\frac{1}{4}$ share. What has he left?

3. What has a tailor left out of a piece of cloth $11\frac{3}{8}$ yards long after he has made a boy's suit of clothes containing $4\frac{1}{2}$ yards?

4. A dressmaker receives a piece of merino $8\frac{3}{4}$ yards long to make a dress with. When the dress is finished she has $1\frac{1}{12}$ yards left. How much did it take to make the dress?

P

1. If a lady had four florins, six half-crowns and a sovereign—she bought $7\frac{1}{2}$ score of eggs at $\frac{3}{4}$d. each, $15\frac{1}{2}$lbs. of coffee at 1s. 6d. per lb., $1\frac{3}{4}$lb. of butter at 1s. per lb.—what change would she have left?

2. A grocer buys a box of oranges containing 760 for £2 10s.; half of them he sells at 10 for a shilling, and the remainder at 2 for 1½d.; he paid 2s. 2½d. for carriage. What profit does he get?

3. Find the cost of carpeting and papering a room the floor of which is 15 feet 9 inches long and 12 feet broad; the papering cost £6 and the carpet cost 4s. per square yard.

4. A farmer engages a labourer at 12 o'clock, January 1st, 1883, at a yearly salary of 35 guineas; he leaves at noon on the 27th of May following. How much ought the labourer to receive if £2 4s. 3d. had been paid to him at the end of February?

INSPECTOR'S TESTS. [FOURTH QUARTER.

A

1. Find the value of four hundred and thirty-two coats at one pound four shillings and threepence three farthings each.

2. What is the cost of 820lb. 9oz. 12 dwts. of plate at 15s. 2½d. per lb.

3. If 885 chairs can be bought for £187 2s. 9¾d., how many can be bought for £158 7s. 7¾d.

4. Make out a bill for—18yds. of calico at 5¾ per yard; 17yds. of print at 6¾d. per yard; 2 doz. yds. of silk at 8s. 5½d. per yard; 3yds. of satin at 3s. 9½d. per yard; 6yds. Cambric at 1s. 10d per yard.

5. A B and C start business, A has £1055, B £1142, and C has £1224, their annual gain is £42 15s 3d.; what are the respective profits.

B

1. Find the cost of 1733½ yards of silk at 7s. 0¾d. per yard.

2. Find the value of 371 tons 8 cwt. 2qrs. 8lb. at £196 1s. 10¾d. per ton.

3. A coal merchant in selling 576 tons of coal for £973 0s. 7d. gained £140 16s. 7d. Find the prime cost.

4. Make out a bill for the following: 3lb. of tea at 3s. 2½d. per lb., 20 doz. lb. of biscuits at tenpence farthing a pound, 5 stone and two lb. of best tea at 3s. 1¾d. per lb., 6lb of green tea at 2s. 1½d. per lb., shop and fitting £110 15s. 9½d.

5. A shopkeeper bought goods weighing 2 tons 5 cwt. for £495 7s. 6d., and paid £2 6s. 8d. carriage, what amount must he sell them at per cent to make a total profit of £144 13s. 4d.

C

1. Make out a bill for the following—6yds. of silk at 8s. 4½d. per yard, 27yds. of muslin at 2s. 10¾d. per yard, 4½yds. of calico at 11d. per yard, 6¾yds of linen at 10½d. per yard, half a gross of buttons at 1s. 1½d. per doz., 2yds. of satin at 4s. 7¾d. per yard.

2. If 2853 men can construct a canal in 96 days, how many days would it take 317 men?

3. $4\frac{1}{2} + 1\frac{3}{4} + 4\frac{1}{4} - 1\frac{3}{8}$.

4. My average daily expenditure this year, 1885, is £2 18s., and this allows me to save £1 17s. at the end of the year; what is my annual income?

5. Find the value of 132 cows at £9 1s. 9d. each.

D

1. Find the value of 280 sewing machines at £1 4s. 2¾d. each.
2. What is the cost of 106⅜ articles at £4 7s. 0¾d. each?
3. If 7 tons 17 cwt. 2qr. are carried 13 miles for £5, how far ought 3 cwt. 2qrs. to be carried for the same amount?
4. Find the worth of 1 mile 5 furlongs 3 poles 3 yds. 1ft. 6 inches, at £38 13s. 10¾d. per mile.
5. Make out a bill for—128lb. of beef at 1s. 1½d. per lb., 18lb. of veal at 5¾d. per lb., 9lb. of beefsteak at 1s. 0¾d. per lb., 240lb. of mutton at 10½d. per lb., 42lb. of dripping at 3s. 9½d. per stone, 2 prize bullocks at £53 12s. 4¾d. each.

E

1. Find the value of 8208yds. of muslin at 1s. 6½d. per yard.
2. From a piece of cloth $9\frac{5}{16}$yds. long $1\frac{7}{16}$ was torn off, how much was left?
3. If I give £35 6s. 10¾d. for 87 iron castings, how much must I give for 2088 similar castings?
4. Make out a bill for—6 doz. flour at 1s. 7½d. per doz., 432lb of lump sugar at 5¾d. per lb.. 56lb. of treacle at 5s. 7½d. per quarter, 6lb. of tea at 2s. 1½d. per lb., and 336 of raw sugar at 7s. 2¾d. per cwt.
5. If sugar be bought at £2 18s. 3½d. per cwt., and sold again at 6½d. per lb., what will be the gain on a cask containing 6 cwt.?

F

1. Make out a bill for—33yds of ribbon at 2¾d. per yard, 2 pairs of gloves at 4s. 1¾d. per pair, 1¼ doz. yds. at 7¾d. per yard, 6 cwt. of sugar at 7½d. for 2lb., 2lb. of bacon at 7½d. per lb.
2. From $145\frac{3}{11}\frac{1}{14}\frac{1}{14}$ take $24\frac{3}{11}\frac{1}{14}\frac{3}{14}$.
3. Find the worth of $25\frac{5}{7}$ articles at £51 11s. 5⅞ each.
4. If a bicyclist travels 29 miles in 3 hours 40 minutes 44 seconds, how long will he be in going 116 miles?
5. A dealer bought nine oxen at £11 17s. 8d. each, one then died; he sold the remainder at £15 5s. 5½d. each; what did he gain or lose by the transaction?

G

1. Make out a bill for—1½ stone of bacon at 4s. 3d. per stone, ½ cwt. of sugar at 15s. 6½d. per cwt., 28lbs. of cheese at £1 15s. 10d. per cwt., 3½ doz. lb. of soap at 2¾d. per lb., 96lb. of tea at 2s. 1½d. per lb., 1 sack of flour 11s. 3¾d., and 1 sack of potatoes, 3s. 5½d.
2. Find the value of 22 c. yds. 13 c. ft. 864 c. inches at £58 18s. 10d. per cubic yard.
3. Find the worth of 400 articles at £3 13s. 6¼d. each.
4. If a sailing ship sails at an average rate of 3½ miles to America and back from London, the distance being 5460 miles, in how many hours will she finish the journey?
5. Three men find a nugget of gold weighing 1lb. 4oz., what ought each to receive if the gold be worth £3 1s. 2½d per oz.?

H

1. Find the value of 531yds. of calico, if 59yds. cost £1 3s.
2. A farmer gave £91 18s. 8d. for 14 cows, 3 died, at what rate each must he sell the remainder in order to gain £32 0s. 11d. by his bargain?
3. Make out a bill for 30 sheep at £4 4s. 0½d., 2 carriage horses at £66 14s. 8¾d. each, ½ doz. prize cows at £23 14s. 8¾d. each, 28 young pigs at 10s. 11¾d. each, 2 prize horses at £84 13s. 5¾d. each, 8 cottages at £145 11s. 8¾d. each.
4. Find the worth of 666yds. of satin at 5s. 6¾d. per yard.
5. What is the value of 3 tons 8 cwt. 2qr. 8lb. at £570 18s. 0½d. per ton?

I

1. Make out a bill for 1½yds. of silk at 4s. 9½d. per yard, 6yds. Cambric at 1s. 5¼d. per yard, 1¼ doz. fancy buttons at 7¾d. each, 96 doz. collars at 2s. 1¼d. per doz., 3 pairs of stockings at 3s. 9½d. per pair, 15yds of fringe at 7¾d. per yard.
2. Find the cost of 272 articles at £5 0s. 4¾d. each.
3. Add together $2\frac{1}{3}+3\frac{1}{4}+4\frac{1}{5}+5\frac{1}{7}$.
4. A bankrupt whose effects are worth £128 15s. 6d., in the £ pays 1s. 8d., what are his debts?
5. A piano, table, and carpet are worth £51 14s. 10d., the piano and table cost £33 11s. 4d., the table and carpet cost £35 10s. 2d.; find the respective prices of the piano, table, and carpet.

J

1. Make out a bill for 11½yds. of ribbon at 2½d. per yard, 12¾yds. of calico at 3d. per yard, 2 doz. handkerchiefs at 2s. 1¾d. per dozen, 64lb of butter at £9 0s. 11¾d. per cwt., 18yds. of fringe at 4s. 3d. per doz. yards, 1 sofa at £1 5s. 4¼d.
2. 184 articles at £4 8s. 8½d. each.
3. From 20¾ take 11⅝.
4. A farmer bought nine oxen at £11 17s. 8d. each, one died, he then sold the remainder at a profit of £2 15s. 1d. each; what did he gain on the whole transaction?
5. If 923 plums cost 19s. 1¾d., find the value of 11076 at the same rate.

K

1. From $15\frac{3}{10}$ take $5\frac{4}{15}$.
2. Find the worth of 528 articles at £2 5s. 5½d. each.
3. Make out a bill for 18 books at 8s. 5d. per doz., 2 maps of England at 6s. 8¾d. each, 27⅞ boxes of pens at 6½d., per box, 4 reams of paper at £3 16s. 1¼d. per ream, 1 shop and fitting £152 2s. 1d.
4. If I can buy 9 tons 10 cwt. 3qr. of cheese for £1212 11s. 0¾d., what ought I to pay for 27¼ cwt.?
5. How many lb. of sugar at 4d. per lb. should be given in exchange for 108lb. of tea at 3s. 9d. per lb., together with 9 doz. lb. of coffee at 1s. 11d. per lb.?

L

1. A bankrupt having £774 14s. 2¼d., can pay 12s. 11d. in the £. How much does he owe?

2. Find the worth of 5 furlongs 32 poles 4 yards at £1732 19s. 10½d. per mile.

3. What is the value of 180 articles at £7 7s. 4½d. each?

4. Make out a bill for 8cwt. of butter at £1 15s. 8½d. per cwt.; 64lbs. of tea at £26 17s. 11⅜d. per cwt.; 2 dozen and 10 boxes of starch at 5s. 9d. per dozen; 6lbs. 12oz. of tea at 2s. 7d. per lb.; cottage, &c., at £153 17s. 11⅜d.

5. After paying an income tax of 4d. in the £, a gentleman had £1924 15s. 0½d. left. What was his income?

M

1. A man who owes £5508 15s. 6d. can only pay 3s. 4d. in the £. What is the value of his effects?

2. Simplify $(8\frac{1}{10} + \frac{3}{7} + \frac{3}{5} + \frac{2}{3}$ and $\frac{1}{3}) - \frac{1}{45}$.

3. Make out a bill for 28lbs. of soap at £1 11s. 10d. per cwt.; one stone of maize at £3 11s. 8d. per cwt.; 21⅛ articles at 8s. 11½d. each; 576lbs. of sugar at 4½d. per lb.; a pony and carriage £91 10s. 8¾d.

4. 1155 horses at £10 16s. 2½d. each.

5. Find the worth of 2tons 5cwt. 2qrs. 24lbs. at £597 7s. 1½d. per ton.

N

1. Find the worth of 234 articles at £11 9s. 1⅜d. each.

2. Find the value of 4tons 11cwt. 1qr. 20lbs. at £7491 2s. 10⅜d. per ton.

3. Make out a bill for 57tons 12cwt. of hay at £7 4s. 5⅜d. per ton; 86 loads 2qrs. of flour at £6 1s. 6⅜d. per load; 432qrs. of oats at £1 8s. 10⅜d. per qr.; 24 ploughs at £31 4s. 4⅜d. each; farm and estate £6251 11s. 1½d.

4. If a flock of sheep travel at the rate of one mile and a half in one hour five minutes six seconds, how long will they be in going 13 miles 880 yards at same rate?

5. If a labourer at a salary of £51 5s. 0d. began work on the morning of June 10th, how much is due to him if he leaves on the evening of the 21st of August?

O

1. If a pound of tea be equal in value to 50 lemons and 60 lemons be worth 90 oranges, what is the value of a lb. of tea if oranges are a halfpenny each?

2. Find the value of 648 articles at £7 8s. 6½d. each.

3. Find the worth of 6lb. 8oz. of gold plate at £81 15s. 9d. per lb.

4. Find the cost of 148yds. of print when 37yds. from the same piece cost £1 11s. 11d.

5. Make out a bill for 3doz. bonnets at 4s. 0½d. each; 16 hats at 10s. 4⅜d. each; ¼doz. satin hats at 3s. 2⅜d. each; six score pairs of slippers at 1s. 8½d. per pair; fittings of shop, &c. £85 16s. 6½d.

P

1. What is the cost of four hundred and thirty-two articles at £2 7s. 2¾d. each?

2. Find the value of 4lbs. 9oz. 12dwts. at £240 13s. 10¼d. each.

3. From $17\frac{3}{8}$ take $5\frac{1}{12}$.

4. Make out a bill for 2doz. pork pies at 6s. 8¾d. per doz.; 2½doz. bottles of pickles at 5¾d. per bottle; 4doz. canisters of tea at £3 16s. 10¼d. per doz.; 2doz. and 10lbs. of lard at 5¾d. per lb.; 2lbs. of fresh butter at 1s. 10½d. per lb.

5. Find the L.C.M. of 189, 126, 42, 7, 63, 378 and 945.

Q.

1. How many men will be wanted to do a piece of work in 79 days which could have been done by 474 men in 113 days?

2. If I spend on an average 24s. 9d. daily, what can I save out of a yearly income of 500 guineas, less 10½d.?

3. Find the value of 12doz. articles at £5 15s. 7d. each.

4. A man who owes £5508 15s. 6d., can only pay 3s. 4d. in the £, what are his effects worth?

5. Make out a bill for 336lbs. of bacon at 7¼d. per lb.; 2 boxes of candles at 5s. 7½d. per box; ½ dozen lbs. of tea at 2s. 1½d. per lb.; 2doz. and 10 wax candles at 4¾d. each; 1 dress at £2 6s. 8½d.

R.

1. Find the value of one hundred and sixty eight articles at £3 15s. 0¼d. each.

2. Find the worth of 9oz. 4drs. 2sc. 8grs. at £936 11s. 10½d. per lb.

3. If I pay £14 7s. 5½d. for 87 geese, what must I pay for 522 geese?

4. What is the height of a steeple whose shadow was 397ft. at the same time that the shadow of a chimney is 33ft. 1in., which was 7ft. 9½ inches high?

5. Make out a bill for 11cwt. 2qrs. 8lbs. of copper plating at 16s. 2½d. per lb.; 1 doz. hams at 18s. 7½d. each; 4 articles at £315 1s. 9½d. each; 3 tons 8cwt. of soap at £5 0s. 4¾d. per quarter; 20 tons of raw sugar at £3 13s. 6¼d. per cwt.; shop and estate £10,743 8s.

S.

1. Find the cost of three hundred and twenty-five articles at one pound seventeen shillings and eight pence each.

2. What is the value of 1fur. 18 poles 1yd. of railway at £534 9s. 5¾d. per furlong?

3. A man buys 148yds. of silk at 6s. 0½d. per yard, at what price per yard must he sell it to gain £16 13s. on the lot?

4. Make out a bill for 8 prize horses at £120 8s. 4¾d. each; 288 sheep at £3 14s. 4d. each; 1doz. pigs at 18s. 10¼d. each; 1155 cows at £10 16s. 2½d each; 8 carriages at £167 8s. 1¾d.; 16 carriage horses at £92 15s. 7¼d average price; 5 score of cart horses at £15 18s. 1¼d. average price; large farm and establishment £144,302 18s. 9½d.

5. What will 87 desks cost if 29 cost £57 14s. 9¾d.?

T

1. Make out a bill for 2doz. harmoniums at £8 18s. 4¾d. average price; 8 pianos at £40 2s. 9½d. each; 8 American organs at £53 10s. 4¾d. each; 72 voilins at an average cost of £7 8s. 8d.; large pedal organ at £4804 15s. 4½d.

2. After paying income tax at 1s. 3d. in the £, a gentleman has £695 12s. 6d. left, what is his annual income?

3. Add up $2\frac{5}{7}+2\frac{4}{5}+\frac{1}{1\,1}+3\frac{1}{2}+\frac{5}{1\,2}$.

4. If 261 horses cost £2808 13s. 3d, find the cost of 87.

5. If £360 3s. be paid for 22 tons 19cwt. 1qr. of oats, find the value of 68 tons 17cwt. 3qrs.

U.

1. Make out a bill for 3978yds. of silk at 13s. 5¾d. per yd.; 12doz. pieces of French merino at £27 10s. 3½d. per doz. pieces; 2736yds. of satin at 3s. 0½d. per yard; 1296yds. of brocade at 8s. 1¼d. per yard; 8208yds. of calico at 1s. 6¼d. per yard; five score dozen pieces of cambric at £7 7s. 0½d. per dozen pieces; shop and fittings £3254 9s. 1d.

2. Find the value of 21½yds. of silk at 8s. 11¼d. per yard.

3. Take $5\frac{4}{1\,5}$yds. of calico out of a piece containing $15\frac{8}{1\,6}$, what length is left?

4. If 59 goats cost £99 0s. 9¾d., find the worth of 708 at same rate.

5. Add up $2\frac{1}{2}$, $3\frac{1}{3}$, $4\frac{1}{3}$, $2\frac{8}{1\,2}$.

V

1. Make out a bill for 576 hams at 18s. 7d., 2184 sacks of flour at 5s. 9½d. each, 408 sides of bacon at £1 16s. 8¾d., 1456 cheeses at 11s. 6½d. each, shop and fitting £6791 5s. 11½d.

2. What will be the cost of 444 sheep if £86 13s. 9d. be paid for 37?

3. If 3⅗yds. be taken from a piece containing 14½yds., what length will be left?

4. Find the L. C. M. of 4, 9, 10, 15, 21, 18, and 20.

5. Find the value of 25¼ articles at £51 11s. 5¾d. each.

W

1. If 651 articles cost £784 16s. 2½d., find the cost of 93.

2. Make out a bill for 6lb. of butter at 1s. 2¾d. per lb., ½ doz. lb. of coffee at 1s. 5½d. per lb., 2¼ doz. lb. of lump sugar at 4½d. per lb., 6 cwt. 3gr. 12lb. of sugar at 3¼ per lb., 2qr. 16lb. of tea at 3s. 1¾d. per lb., 3 crates of best earthenware at £34 6s. 10½d. per crate.

3. Find the L. C. M. of 9, 13, 8, 4, 7, 1008 and 18.

2. Find the value of 66⅔yds. of railway at £22 1s. 1½d. per yard.

5. Reduce to lowest terms $\frac{1\,2}{6\,4}\frac{8}{0}\frac{4}{0}\frac{8}{0}$.

X

1. Make out a bill for 64 caps at 1s. 11½d. each, 3 score and 4 bonnets at 2s. 2¾d. each, 2 doz. hats at 6s. 10¾d. each, 4 dresses at £2 6s. 1¼ each, 2592 pairs of boots at 8s. 1¼d. per pair, 8 overcoats at £13 8s. 2¾d. each. each.

2. Find the value of five hundred and seventy-seven and a half articles at twenty-one pound twelve shillings and fivepence each.

3. Add together $2\frac{1}{4}$, $3\frac{1}{2}$, $4\frac{3}{8}$, $1\frac{1}{8}$, $2\frac{7}{12}$.

4. If 485 tables cost ££712 1s. 10½d., find the worth of ninety-seven.

5. Find the L. C. M. of 5, 3, 103, 153, 255, and 765.

Y

1. Make a bill for 9 saddles at 8s. 8½d. each, 648 bicycles at £7 8s. 6½d. each, 68 tricycles at £7 10s. 0½d. each, 80 Otto bicycles at £7 13s. 0½d. each, a steam engine at £5745 2s. 7½d.

2. Find the value of one thousand four hundred and fifty-six articles at 8s. 5½d. less than £1 each.

3. Find the L. C. M. of 9, 4, 36, 8, 3 and 13.

4. Find the value of 400896 articles at 5s. 3½d. each.

5. Find the value of 2 tons 5 cwt. 2qr. 24lb. at £495 15s. 7¾d. per ton.

Z

1. Find the value of 648 articles at £7 8s. 6¼d. each.

2. Find the cost of $12531\frac{888}{1000}$ articles at £4 4s. 7¾d. each.

3. Make out a bill for a steam engine at £3084 0s. 2¾d., 2184 articles at 5s. 9¼d. each, 18 articles at £404 12s. 6¼d., 416 articles at £2 0s. 4¾d. each, 21 articles at £450 4s. 11¾d., 400896 articles at 5s. 3½d. each, and 16 articles at £70 16s. 6¼d. each.

4. If 397 tons 0 cwt. 1qr. 27lb be carried 50 miles for £206 17s., what weight ought to be carried the same distance for £68 19s. ?

5. Reduce to an improper fraction $24\frac{1}{2}$.

Final Test.

1. From 3¼yds. of cloth take away ¾ of a yard. What length is left ?

2. Find value of 2 tons 5 cwt. 2qr. 24lb. at £140 9s. 8¼d. per ton.

3. What is the cost of 128 articles at £3 6s. 3¼d. each ?

4. Make out a bill for 13824 articles at £3 16s. 8¾d. each, 364 articles at £1 14s. 7½d. each, 3 doz. articles at £20 12s. 4¼d. each, 2 doz. articles at £3502 0s. 2¾d. each, 3 score articles at £15 18s. 1¼d. each, 144 articles at £69886 6s. 4¾d. each.

5. If £100 18s. 3d. be paid for 336 tons 8 cwt. 1qr. 8lb. of potatoes, what quantity can be got for £33 12s. 9d. ?

THE

"TRY" ARITHMETIC.

PART VI. FOR STANDARDS VI. & VII.

COMPOUND PROPORTION.

RULE.

1. Put last the single term (*i.e.*, that which corresponds to the answer).

2. Take two like terms, and if the answer required be greater, put in the second term the greater number and the less number in the first term; again take other two like terms and treat them similarly, and so on till all the terms are stated. Then divide the products of second and third terms multiplied together by the product of first terms. The quotient will be the answer.

NOTE.—The work may be shortened very much by cancelling.

A

1. How long will 20 bushels of oats serve 6 horses, if 15 bushels serve 9 horses for 24 days?

2. How many men will £1596 pay for working 648 days, if £665 pay 9180 men for working 15 days?

3. How many men can dig 2 acres in 3 days if 81 men can dig $2\frac{1}{4}$ acres in 27 days?

4. How many horses would plough a field of 91 acres in 7 days, if 107 horses can plough 39 acres in 21 days?

B

1. How many loaves of bread will 44 persons want for 21 days, if 81 loaves last 7 persons for 33 days?

2. If the carriage of 3 tons 10 cwt. for 80 miles is £28, how much will be charged for the carriage of 32 tons for 140 miles?

3. How much will serve 12 persons for 26 years, if £120 serve 8 persons for 9 years?

4. A room is 40 ft. broad, 99 ft. long, and 5 ft. deep. How many bales can be put there, each bale being 2 ft. 8 inches broad, $3\frac{1}{2}$ ft. long, and $2\frac{1}{2}$ ft. deep, leaving a way 4 ft. broad?

C

1. How long should 14 persons be boarded for 60 guineas, if 3 persons are boarded 5 weeks for £17 10s.

2. How many men will be required to dig a trench 480 ft. long, 5 ft. broad, and 2 ft. deep in $5\frac{1}{3}$ hours, if 8 men can dig a trench 100 ft. long, 3 ft. broad, and 4 ft. 6 inches deep in 9 hours?

3. If nine persons spend £120 in eight months, what sum will it take to last 26 persons for twelve months?

4. How long would it take 363 men to do $2\frac{3}{4}$ of the same work reckoning $10\frac{1}{2}$ hours to the day, if 4578 men can build a certain wall in $20\frac{5}{8}$ days of $9\frac{3}{5}$ hours each?

D

1. How many hours and minutes a day must 18 men work to build 64 cottages in 40 days, if 12 men build 24 cottages in 30 days, working 8 hours a day?

2. If the wages of 945 boys for 11 weeks amount to £438 6s. 0d., how many boys ought to be paid weekly from £48 14s. 0d.?

3. In how many days would 15 men finish the building of 195 houses, if 48 men can build 52 houses in 107 days?

4. If 28 carpenters can make 856 tables in 12 weeks, working $5\frac{1}{2}$ hours a day, how many tables can 13 carpenters make in 21 weeks, working 11 hours daily?

E

1. If 12 men dig a trench 90 yards long, 4 ft. broad, and 3 ft. deep in two weeks, working 10 hours a day and 5 days a week, in how many weeks will 10 men, working 8 hours a day and 6 days a week, dig a trench 5136 yds. long, 9 ft. broad, and 6 ft. deep?

2. How many men will be required to dig a trench 7119 yards long, 5 ft. wide, 9 ft. deep, in 45 days, if 27 men dig a trench 324 yds. long, 6 ft. wide, 4 ft. deep, in 32 days?

3. If 8 men dig a trench 26 yds. long, 9ft. deep, and 10 ft. wide in 108 weeks, how many weeks will 7 men be in digging a trench 91 yds. long, 12 ft. deep, and 15 ft. broad?

4. If a family of 18 persons spend £71 6s. 0d. in 424 days on food, how many days would a family of 12 persons live on £106 19s. 0d.?

F

1. A railway company charges £2 for the carriage of 19cwt. for 30 miles. What weight ought to be carried 42 miles for one guinea at the same rate?

2. If 12 men, 15 women, and 18 boys can do a piece of work in 12 days of 8 hours, how many hours and minutes a day must 15 men and 48 boys work to do twice as much in 20 days, supposing a man to do as much as 2 women, and a woman as much as 2 boys?

3. If 10 cows and 45 sheep eat 11 tons 5cwt. of hay in 10 days, how much hay will 12 cows and 18 sheep eat in a fortnight, supposing 5 cows to eat as much as 9 sheep?

4. If a tradesman with a capital of £2,000 gains £50 in 3 months, what sum will he gain with a capital of £9,000 in one year and two months?

G

1. If 14 men can finish a piece of work in 40 days, in how many days can 30 boys do the same, supposing 3 boys to be able to do as much as 2 men?

2. If a ship's crew of 500 men have provisions to serve for 48 days at the rate of 27oz. per day for each man, how many men will the same provisions serve for 60 days, allowing each man 30oz. per day?

3. A man finds by walking 24 miles per day for 3 days a week that he can finish a journey in 12 weeks. How many weeks would he be if he travelled at the rate of 32 miles a day for 6 days a week?

4. Find the cost of papering a room 19ft. 8 inches wide, 24ft. 4 inches long, and 13½ft. high with paper 2¼ft. wide, which costs 11s. per piece of 12 yards, the windows and parts not requiring paper making up ⅛ of the whole surface.

GREATEST COMMON MEASURE.

DEFINITION.—The Greatest Common Measure of two or more given numbers is the greatest number which divides each of the given numbers exactly. 12 is the G.C.M. of 48, 24, 36.

RULE.—Divide the greater number by the less and the preceding divisor by the remainder, and so on continually until there is no remainder. The last divisor is the G.C.M.

	A	B	C
1.	24 and 48	120 and 384	336 and 2828
2.	108 and 360	273 and 390	5928 and 9360
3.	1236 and 2060	144 and 528	2080 and 2912
4.	1020 and 6630	3605 and 5150	8320 and 14040
5.	3672 and 6732	7194 and 10464	9984 and 16848
6.	23219 and 12733	9919 and 32809	14700 and 27195
7.	15808 and 42432	5712 and 7344	25440 and 44944
8.	4770 and 16218	5886 and 10791	4635 and 6489

D

1.	384 and 432 and 648	5. 41856 and 47088 and 3270
2.	5136 and 69336 and 1605	6. 12852 and 72114
3.	6848 and 21828 and 2140	7. 25920 and 92448
4.	16960 and 38160 and 2650	8. 89046 and 92718

LEAST COMMON MULTIPLE.

DEFINITION.—The Least Common Multiple of two or more given numbers is the least number which contains each of the given numbers exactly.

RULE.—Put the numbers in a line, strike out those which are multiples of others, then divide by two as often as any of them will divide by 2. Then similarly divide by 3, 5, 7, and so on by all the prime numbers. The continued product of the divisors is the L.C.M.

E

1. 2, 4, 7, 28
2. 3, 12, 4, 9, 18
3. 3, 24, 16, 8
4. 13, 8, 5, 52, 4
5. 6, 9, 27, 113, 54

F

1. 11, 8, 13, 88
2. 9, 16, 27, 81, 324
3. 253, 11, 23, 2, 13, 572
4. 102, 6, 12, 14, 21
5. 5, 4, 15, 8, 13

G

1. 11, 5, 7, 29, 203, 55, 77, 35
2. 4, 9, 10, 15, 21, 18, 20
3. 9, 13, 8, 4, 7, 1008, 18
4. 13, 4, 728, 1456, 7
5. 3, 5, 2, 53

H

1. 5, 14, 98, 49, 294
2. 5, 3, 2, 153, 255, 765
3. 5, 16, 42, 80, 336, 560
4. 13, 17, 26, 2, 104, 136
5. 7, 42, 63, 126, 189, 378, 945

To Reduce an Improper Fraction to a Mixed or Whole Number.

Definition.—*An Improper Fraction* is one whose numerator is equal to or greater than the denominator.

Rule.—Divide the numerator by the denominator, the quotient is a whole number, and the remainder, if any, the numerator of the fractional part of the mixed number required.

I	J	K	L
1. $\frac{4}{2}$	1. $\frac{18}{6}$	1. $\frac{432}{144}$	1. $\frac{707}{70}$
2. $\frac{7}{2}$	2. $\frac{29}{6}$	2. $\frac{1878}{457}$	2. $\frac{38551}{344}$
3. $\frac{25}{6}$	3. $\frac{27}{}$	3. $\frac{247}{346}$	3. $\frac{7919962}{64860}$
4. $\frac{27}{5}$	4. $\frac{1675}{275}$	4. $\frac{2907}{850}$	4. $\frac{1065550}{7891}$
5. $\frac{49}{8}$	5. $\frac{8707}{643}$	5. $\frac{4811}{854}$	5. $\frac{1138577}{8112}$
6. $\frac{67}{9}$	6. $\frac{408841}{8104}$	6. $\frac{49157}{668}$	6. $\frac{7654}{5}$
7. $\frac{53}{8}$	7. $\frac{8891}{90}$	7. $\frac{58861}{664}$	7. $\frac{978031}{6113}$
8. $\frac{65}{7}$	8. $\frac{101}{10}$	8. $\frac{8691}{90}$	8. $\frac{2861}{168}$
9. $\frac{101}{10}$	9. $\frac{6673}{666}$	9. $\frac{401}{80}$	9. $\frac{6927}{100}$
10. $\frac{8675}{738}$	10. $\frac{8415}{834}$	10. $\frac{38551}{344}$	10. $\frac{188}{7}$

To Reduce a Mixed Number to an Improper Fraction.

Definition.—A Mixed Number is one formed of a whole number and a fraction, as $3\frac{1}{2}$, $4\frac{3}{7}$.

Rule.—Multiply the integer by the denominator, and to the result add the numerator, keeping the same denominator.

M		N		O	
1. $10\frac{1}{2}$	6. $8\frac{833}{1331}$	1. $15\frac{1}{3}$	6. $30\frac{247}{346}$	1. $1\frac{31}{71}$	6. $31\frac{3}{5}$
2. $6\frac{1}{4}$	7. $34\frac{93}{1446}$	2. $2141\frac{1}{2}$	7. $2363\frac{3}{4}$	2. $37\frac{3}{5}$	7. $28\frac{1}{4}$
3. $6\frac{3}{5}$	8. $1311\frac{1}{7}$	3. $1080\frac{1}{3}$	8. $1\frac{21}{80}$	3. $63\frac{1}{2}$	8. $1\frac{7}{111}$
4. $10\frac{1}{4}$	9. $1010\frac{1}{15}$	4. $7\frac{833}{1331}$	9. $13\frac{3}{5}$	4. $15\frac{2207}{3991}$	9. $63\frac{277}{1331}$
5. $7\frac{3}{8}$	10. $16\frac{1}{7}$	5. $39\frac{127}{135}$	10. $63\frac{1}{2}$	5. $18\frac{5}{8}$	10. $24\frac{1}{3}$

P

1. $353\frac{8}{9}\frac{2}{1}\frac{7}{5}$ 3. $1080\frac{4}{8}$ 5. $13\frac{2}{5}\frac{2}{1}\frac{7}{3}$ 7. $20\frac{1}{4}\frac{2}{6}\frac{5}{3}$ 9. $87\frac{3}{5}$
2. $77\frac{3}{6}\frac{3}{2}\frac{1}{0}$ 4. $7\frac{4}{8}\frac{4}{1}\frac{2}{4}$ 6. $4323\frac{1}{2}$ 8. $1\frac{1}{1}\frac{1}{0}$ 10. $44\frac{1}{1}\frac{1}{3}\frac{1}{4}$

To Reduce a Fraction to its Lowest Terms.

Definition.—A Fraction is in its Lowest Terms when the numerator and denominator are prime to each other.

Rule.—Divide both numerator and denominator by their G.C.M.

Q

1. $\frac{3}{3}\frac{0}{0}\frac{3}{3}\frac{3}{0}$ 6. $\frac{1}{5}\frac{1}{3}\frac{0}{0}$
2. $\frac{2}{9}\frac{2}{4}$ 7. $\frac{1}{6}\frac{1}{0}\frac{1}{2}$
3. $\frac{4}{1}\frac{4}{1}\frac{4}{5}\frac{0}{0}$ 8. $\frac{1}{9}\frac{1}{0}\frac{1}{2}$
4. $\frac{2}{2}\frac{0}{0}\frac{2}{4}$ 9. $\frac{1}{1}\frac{1}{0}\frac{5}{0}\frac{5}{8}$
5. $\frac{1}{2}\frac{7}{9}\frac{7}{6}$ 10. $\frac{1}{6}\frac{7}{0}\frac{0}{5}\frac{4}{4}$

R

1. $\frac{2}{3}\frac{2}{9}\frac{2}{6}$ 6. $\frac{1}{6}\frac{3}{3}\frac{1}{3}\frac{2}{3}\frac{1}{6}$
2. $\frac{1}{3}\frac{6}{7}\frac{6}{1}\frac{5}{6}$ 7. $\frac{1}{4}\frac{4}{3}\frac{8}{2}\frac{4}{3}$
3. $\frac{2}{4}\frac{0}{4}\frac{1}{8}\frac{1}{5}\frac{0}{0}$ 8. $\frac{7}{6}\frac{4}{0}\frac{8}{1}\frac{8}{6}$
4. $\frac{4}{2}\frac{7}{8}\frac{7}{6}\frac{0}{0}$ 9. $\frac{1}{1}\frac{7}{4}\frac{0}{0}\frac{9}{1}\frac{7}{6}$
5. $\frac{1}{1}\frac{0}{2}\frac{1}{3}\frac{6}{8}\frac{7}{0}$ 10. $\frac{1}{3}\frac{4}{1}\frac{0}{3}\frac{8}{3}$

S

1. $\frac{2}{7}\frac{5}{0}\frac{5}{1}\frac{3}{5}$ 6. $\frac{5}{4}\frac{8}{3}\frac{4}{3}\frac{6}{6}$
2. $\frac{2}{3}\frac{2}{2}\frac{0}{9}\frac{0}{1}\frac{4}{0}\frac{8}{6}$ 7. $\frac{2}{6}\frac{5}{6}\frac{0}{4}\frac{0}{6}$
3. $\frac{5}{3}\frac{1}{0}\frac{7}{3}\frac{8}{6}$ 8. $\frac{6}{3}\frac{6}{2}\frac{5}{4}\frac{8}{1}$
4. $\frac{1}{1}\frac{1}{2}\frac{0}{1}\frac{9}{3}\frac{7}{5}\frac{0}{6}$ 9. $\frac{1}{1}\frac{8}{7}\frac{2}{2}\frac{1}{1}\frac{0}{6}\frac{0}{6}$
5. $\frac{8}{7}\frac{0}{0}\frac{5}{5}\frac{6}{6}$ 10. $\frac{2}{5}\frac{1}{5}\frac{0}{1}\frac{0}{6}$

T

1. $\frac{1}{5}\frac{7}{1}\frac{1}{3}\frac{7}{8}\frac{1}{0}$ 3. $\frac{8}{2}\frac{0}{3}\frac{1}{7}\frac{0}{0}\frac{3}{8}$ 5. $\frac{1}{6}\frac{1}{4}\frac{0}{3}\frac{3}{6}$ 7. $\frac{6}{2}\frac{0}{0}\frac{3}{0}\frac{4}{3}\frac{7}{2}$ 9. $\frac{1}{4}\frac{8}{0}\frac{9}{2}\frac{1}{5}\frac{4}{0}$
2. $\frac{1}{4}\frac{8}{1}\frac{6}{2}\frac{4}{8}$ 4. $\frac{9}{7}\frac{5}{8}\frac{0}{3}\frac{0}{2}\frac{4}{4}$ 6. $\frac{4}{1}\frac{7}{7}\frac{1}{6}$ 8. $\frac{8}{3}\frac{3}{0}\frac{4}{0}\frac{4}{2}\frac{5}{5}$ 10. $\frac{1}{6}\frac{7}{0}\frac{6}{3}\frac{3}{4}$

To Reduce to Common Denominator.

Rule.—Find the L.C.M. of all the denominators. This will be the common denominator. Divide the common denominator so found by the denominator of the first fraction, and multiply the quotient by the numerator of the first fraction. The product will be the numerator of the first fraction; and proceed similarly to find numerators of second and remaining fractions.

Note.—This rule is used for comparing fractions.

U

1. $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{4}$
2. $\frac{1}{8}$, $\frac{2}{17}$, $\frac{4}{17}$
3. $\frac{1}{16}$, $\frac{1}{16}$, $\frac{1}{16}$

V

1. $\frac{1}{16}$, $\frac{1}{16}$, $\frac{7}{16}$
2. $\frac{1}{8}$, $\frac{2}{25}$, $\frac{1}{4}$
3. $\frac{1}{16}$, $\frac{2}{25}$, $\frac{1}{16}$

W

1. $\frac{2}{24}$, $\frac{2}{37}$, $\frac{4}{37}$
2. $\frac{1}{8}$, $\frac{1}{16}$, $\frac{9}{16}$
3. $\frac{1}{16}$, $\frac{7}{80}$, $\frac{1}{16}$

X

1. $\frac{1}{16}$, $\frac{1}{16}$, $\frac{2}{16}$, $\frac{1}{16}$, $\frac{7}{16}$
2. $\frac{1}{16}$, $\frac{1}{16}$, $\frac{1}{8}$, $\frac{3}{40}$, $\frac{1}{16}$, $\frac{3}{16}$, $\frac{3}{16}$
3. $\frac{1}{16}$, $\frac{2}{25}$, $\frac{1}{16}$

ADDITION OF VULGAR FRACTIONS.

Rule.—Reduce the fractions to their L.C.D. Add the new numerators together and place the sum over the common denominator.

A

1. $1\frac{1}{2}+\frac{3}{4}$
2. $2\frac{1}{3}+\frac{1}{4}+\frac{3}{4}$
3. $4\frac{3}{16}+\frac{5}{10}+\frac{7}{16}$
4. $\frac{3}{5}+\frac{1}{5}+4\frac{1}{5}$
5. $\frac{1}{8}+\frac{3}{4}+5\frac{1}{2}$

B

1. $\frac{1}{2}+\frac{1}{3}+\frac{7}{8}+\frac{5}{12}$
2. $\frac{1}{5}+\frac{2}{3}+30\frac{2}{3}$
3. $\frac{1}{4}+\frac{1}{8}+\frac{1}{3}+\frac{3}{16}+3\frac{1}{6}$
4. $\frac{11}{16}+\frac{5}{21}+\frac{1}{3}+\frac{17}{24}+4\frac{1}{2}$
5. $4\frac{5}{12}+\frac{1}{3}+\frac{7}{8}+\frac{5}{16}$

C

Find the sum of—

1. $\frac{1}{2}$, $\frac{5}{6}$, $69\frac{5}{9}$, $\frac{3}{21}$
2. $\frac{5}{12}$, $\frac{1}{3}$, $\frac{7}{24}$, 8
3. $85\frac{2}{3}$, $3\frac{1}{3}$, $2\frac{5}{6}$, $\frac{7}{12}$, $3\frac{1}{4}$, $\frac{21}{44}$
4. 2, $\frac{5}{8}$, $\frac{1}{5}$, $7\frac{1}{3}$
5. $\frac{5}{6}$, $3\frac{1}{7}$, $\frac{5}{8}$, $\frac{11}{12}$, $5\frac{5}{14}$, $\frac{1}{2}$, $\frac{1}{21}$

D

Add together—

1. $3\frac{3}{4}$, $7\frac{1}{2}$, $18\frac{3}{5}$, $\frac{1}{10}\frac{4}{5}$, $40\frac{1}{14}$
2. $269\frac{1}{3}$, $174\frac{2}{6}$, $10\frac{1}{2}$, $394\frac{4}{12}$
3. $89\frac{7}{4\,5}$, $1\frac{1}{3}$, $\frac{3}{15}$, $\frac{11}{3\,3}$, $\frac{14}{3\,3}$
4. $2\frac{3}{5\,5}$, $\frac{2}{5}$, $\frac{4}{8}$, $\frac{7}{1\,0}$, $5\frac{3\,3}{5\,5}$
5. $5\frac{101}{1\,5\,5}$, $4\frac{2}{5}$, $\frac{17}{2\,5}$, $\frac{1}{8}$, $\frac{3}{21}$, $\frac{11}{7\,7}$

Subtraction. RULE.—Proceed as in addition, then take the less numerator from the greater, and place the difference over the common denominator.

E

1. $6\frac{5}{8} - 3\frac{7}{8}$
2. $6\frac{3}{5} - 3\frac{7}{1\,5}$
3. $4\frac{1}{2} - \frac{1}{3}$
4. $5\frac{1}{1\,5} - \frac{3}{1\,5}$
5. $11\frac{3}{4} - 4\frac{1}{2}$

F

1. $3\frac{2}{3\,5} - \frac{2}{7}$
2. $8\frac{3}{4\,2} - 4\frac{1}{2}$
3. $9\frac{2}{3} - 3\frac{2}{3}$
4. $8\frac{3}{4\,0} - 2\frac{2}{4}$
5. $7\frac{3}{1\,5} - \frac{3}{2\,0}$

G

1. $4\frac{1}{3} - \frac{1}{2}$
2. $7\frac{1}{5} - 1\frac{1}{4}$
3. $9\frac{5}{1\,6} - 3\frac{7}{8}$
4. $8\frac{3}{4} - 1\frac{1}{12}$
5. $12\frac{17}{1\,8} - 4\frac{11}{1\,8}$

H

1. $4 - 3\frac{1}{4} + 6\frac{1}{2}$
2. $8\frac{1}{2} + 1\frac{1}{3} - \frac{7}{1\,2}$
3. $2\frac{1}{3} + 9\frac{1}{2} - 2\frac{5}{6}$
4. $3\frac{5}{1\,2} + 7\frac{1}{3} - \frac{5}{1\,5}$
5. $100\frac{7}{1\,1\,8} + 22\frac{1\,9}{1\,1} - 3\frac{4\,3}{1\,1\,8}$

Multiplication. RULE.—Multiply the numerators together, and the denominators together for the new numerator and denominator respectively.

NOTE.—The work sometimes may be shortened very much by cancelling.

I

1. $7\frac{1}{2} \times \frac{1}{3}$
2. $\frac{3}{5} \times 1\frac{2}{1\,5} \times \frac{1\,9}{2}$
3. $\frac{1\,9}{6} \times \frac{5\,9}{6} \times \frac{3}{1\,9}$
4. $\frac{4}{7} \times \frac{1}{2}$ of $3\frac{1}{2}$ of $5\frac{1}{4}$
5. $7\frac{1}{3}$ of $\frac{1}{2} \times \frac{1}{3}$ of $24\frac{1}{2}$
6. $38\frac{1}{2} \times \frac{3}{1\,1}$

J

1. $5\frac{1}{7} \times 12 \times 1\frac{1}{3} \times \frac{3}{5}$
2. $\frac{3}{4}$ of $\frac{8}{1\,1}$ of $2\frac{2}{3} \times 9 \times \frac{1}{3}$
3. $\frac{3}{5}$ of $8 \times 4\frac{1}{3} \times \frac{3}{8}$
4. $2\frac{1}{3} \times 2 \times 1\frac{3}{1\,0}$
5. $2\frac{1}{1\,6} \times \frac{3}{1\,1} \times 1\frac{7}{1\,5} \times 7\frac{1}{3}$
6. $1\frac{1}{3} \times 1\frac{2}{4} \times \frac{7}{1\,3} \times 6\frac{1}{2}$

K

1. $\frac{1}{3}$ of $3\frac{2}{4} \times \frac{7}{3} \times 3$
2. $3\frac{1}{7}$ of $\frac{3}{5} \times \frac{7}{3}$ of $25 \times \frac{1}{4}$
3. $\frac{1}{2}$ of $\frac{7}{1\,3}$ of $\frac{2}{5} \times \frac{4}{1\,1}$ of $3\frac{1}{2} \times 29$
4. $\frac{1\,1}{1\,3}$ of $3\frac{1}{3} \times 1\frac{1}{1\,3} \times 6\frac{7}{8} \times \frac{4\,2}{1\,1}$ of $\frac{2}{3}$
5. $3 \times 3\frac{1}{3} \times \frac{2}{4}$ of $\frac{3}{1\,5} \times \frac{3\,9}{2}$
6. $5\frac{3}{1\,9}$ of $3\frac{1}{4} \times \frac{2}{1\,1\,7}$ of $34 \times \frac{1}{1\,9\,3} \times \frac{4\,2\,4}{3\,3\,4} \times 4\frac{5}{1\,7}$

L

1. $\frac{7}{1\,3}$ of $\frac{1}{3}$ of $2\frac{1}{7} \times \frac{1\,3}{1\,4\,4} \times 3\frac{1}{3} \times 2\frac{1}{2}$ of 36
2. $1\frac{2\,3}{3\,3}$ of $\frac{5}{1\,1} \times 1\frac{3}{1\,0\,7} \times \frac{1\,1\,3}{1\,3\,3}$ of $\frac{3\,1}{1\,3\,3} \times \frac{1\,3\,1}{1\,7\,1} \times \frac{3\,1\,6}{4\,0}$
3. $\frac{1\,3\,7}{1\,7\,7} \times 1\frac{1\,3\,1}{3\,3\,1} \times 2\frac{6\,6}{1\,0\,5} \times 1\frac{1\,3\,1}{1\,3\,1} \times \frac{3\,1\,7}{1\,3\,1\,3}$ of 96
4. $\frac{9\,5}{1\,1\,6} \times \frac{1\,7}{3\,1} \times \frac{3\,7}{1\,1\,3} \times \frac{1\,3\,3}{1\,3\,3} \times 1\frac{3}{4}$ of $\frac{1\,9}{1\,4}$
5. $\frac{1}{3} \times \frac{3}{4\,4} \times \frac{1\,3}{1\,3} \times 3\frac{7}{1\,6} \times \frac{5}{2} \times \frac{3}{5\,1} \times 4\frac{1}{3}$
6. $7\frac{1}{2} \times \frac{4}{5\,5} \times \frac{1\,9}{3} \times 3 \times \frac{3}{2}$

Division. RULE.—If mixed numbers reduce to improper fractions. Invert the terms of the divisor and proceed as in multiplication.

M

1. $5\frac{1}{2} \div \frac{1}{6}$
2. $\frac{9}{4}J \div 2\frac{1}{4}$
3. $\frac{4}{11}\frac{4}{1} \div \frac{1}{9}$
4. $1\frac{2}{3}\frac{0}{4} \div \frac{1}{8}$
5. $1\frac{1}{1}\frac{9}{0} \div \frac{1}{1}\frac{1}{3}$

N

1. $1\frac{1}{6} \div 1\frac{2}{17}$
2. $3\frac{3}{7} \div 4\frac{4}{11}$
3. $36\frac{7}{10} \div 7\frac{3}{5}\frac{3}{7}$
4. $\frac{4}{6} \div \frac{5}{3}\frac{5}{9}$
5. $2\frac{1}{2}\frac{3}{7} \div \frac{1}{8}$

O

1. $\dfrac{\frac{5}{2}\frac{5}{3}}{\frac{5}{7}\frac{5}{8}}$
2. $\dfrac{\frac{4}{7}}{\frac{3}{5}\frac{3}{5} - \frac{4}{7}\frac{4}{3}}$
3. $\dfrac{13\frac{2}{3}\frac{2}{2}}{3\frac{3}{5}}$
4. $\dfrac{4\frac{3}{5} - 2\frac{2}{5}}{\frac{3}{4}\frac{1}{1}}$
5. $\dfrac{\frac{2}{4}\frac{1}{0}}{1 - \frac{3}{1}\frac{2}{1}}$

P

1. $1\frac{2}{3}\frac{3}{3} \div \frac{3}{7}$
2. $\frac{5}{8} \div (2 - 1\frac{3}{5}\frac{3}{5})$
3. $(40 + 23\frac{1}{7}) \div 4\frac{3}{7}$
4. $(100\frac{1}{9} - 13) \div 5\frac{5}{9}$
5. $81\frac{7}{11} \div 5\frac{1}{11}$

Simplification of fractions.

Q

1. $\frac{3}{4}$ of $\frac{2}{3} + 7$
2. $\dfrac{\frac{3}{4} \text{ of } 5\frac{1}{2} \text{ of } \frac{1}{3}}{4\frac{1}{2} \text{ of } 8\frac{1}{4}} + 8\frac{1}{7}\frac{1}{2}$
3. $908 + \dfrac{9\frac{5}{1}\frac{5}{1} \text{ of } 22}{7\frac{3}{5}}$
4. $\dfrac{5\frac{5}{1}\frac{5}{1}}{2\frac{7}{1}\frac{7}{1}} + 8\frac{1}{3}\frac{1}{0}$
5. $\dfrac{\frac{1}{2} + \frac{1}{3} + \frac{1}{4}}{\frac{1}{2\frac{1}{2}} + \frac{1}{3\frac{1}{3}} + \frac{1}{4\frac{1}{2}}} + (116 - \frac{5}{2}\frac{5}{6})$

R

1. $\dfrac{\frac{1}{2} + 1\frac{1}{3} + 2\frac{1}{3}}{(\frac{1}{2} \text{ of } 1\frac{2}{3}) - (\frac{1}{3} \text{ of } \frac{2}{3})}$
2. $\dfrac{52}{3\frac{1}{4}} - 7\frac{5}{6}$
3. $\dfrac{\frac{4}{2}\frac{3}{5}}{\frac{8}{1}\frac{1}{5} \text{ of } \frac{7}{5}} + 8\frac{1}{7}$
4. $\dfrac{3\frac{2}{4}}{5} + 9\frac{2}{1}\frac{2}{5}$
5. $\dfrac{4\frac{5}{1}\frac{5}{9} \div 21\frac{1}{3}}{14\frac{1}{2} \div 5\frac{5}{11}} + 115$

S

1. $\dfrac{1\frac{1}{2} - \frac{5}{1}\frac{5}{2}}{3\frac{1}{2} - 2\frac{5}{2}} + \frac{1}{3}$
2. $\dfrac{\dfrac{6 \times 4 \times 2}{8 \times 3}}{\dfrac{2 \times 7 \times 9}{3 \times 8}} + 31$
3. $\left\{\left(\dfrac{3\frac{1}{2}}{7} + \dfrac{2}{10\frac{1}{2}} - \dfrac{5}{18} \text{ of } \dfrac{4}{7}\right) 1\frac{2}{4}\right\} + 3\frac{5}{1}\frac{5}{2}$
4. $\left(\dfrac{1 - \dfrac{1\frac{1}{2}}{2\frac{1}{2} \text{ of } \frac{5}{8}}}{1 - \dfrac{1}{3\frac{1}{2}}} \text{ of } \frac{5}{7}\right) + 4\frac{1}{3} + \frac{3}{5}$
5. $22\frac{1}{3} - \dfrac{4\frac{4}{1}\frac{4}{5} \text{ of } 2\frac{5}{8}}{5\frac{1}{3} - 4\frac{1}{2}}$

T

1. $(\frac{5}{7} \times 1\frac{2}{3} \text{ of } 12\frac{1}{2} \times 2\frac{1}{3} \text{ of } \frac{8}{2}\frac{8}{4}) + 2$
2. $\dfrac{28}{2\frac{3}{5} + \frac{2}{3}} - 3$
3. $\dfrac{9\frac{7}{9}}{2\frac{1}{3}\frac{1}{7}} + 1$
4. $\dfrac{7\frac{5}{1}\frac{5}{3} \times 2\frac{1}{3}}{9\frac{1}{2} \div 1\frac{2}{3}\frac{2}{5}} + (\frac{3}{4} + 4\frac{7}{6})$
5. $\dfrac{\dfrac{\frac{4}{5} \times \frac{5}{7}}{\frac{6}{7} + \frac{1}{4}}}{\frac{2}{3}} + (6\frac{4}{5} + \frac{2}{3}\frac{1}{2})$

U

1. $7\frac{1}{2} - (3\frac{2}{3} + \frac{3}{5}) - 1\frac{1}{3} \times \frac{3}{5} + (\frac{7}{30} + \frac{4}{5})$

2. $\dfrac{\frac{3}{5} \text{ of } \frac{3}{4}}{\frac{1}{2}} + \dfrac{\frac{3}{5} \text{ of } \frac{4}{5}}{\frac{3}{5} \text{ of } 4\frac{1}{2}} + 2\frac{3}{5}$

$$\frac{\frac{3}{4} \text{ of } \frac{3}{4}}{\frac{1}{2}} - \frac{\frac{3}{5} \text{ of } \frac{6}{5}}{\frac{3}{5} \text{ of } 4\frac{1}{2}}$$

3. $\dfrac{\frac{1}{2} + 1\frac{1}{2} + 2\frac{1}{2}}{\frac{1}{2} \text{ of } (1\frac{3}{4} - \frac{1}{2} \text{ of } \frac{1}{2})}$

4. $\dfrac{3\frac{1}{2} \text{ of } 1\frac{1}{5}}{1\frac{1}{3} \text{ of } 1\frac{1}{4}} + 4\frac{7}{100}$

5. $7\frac{1}{3} - \frac{3}{4}\,(3\frac{2}{3} + \frac{3}{5} - 1\frac{1}{2}) + (1\frac{3}{10} - \frac{1}{5})$

REDUCTION OF (CONCRETE) FRACTIONS.

1. To find the value of the fractional part of any quantity. (V, W, X, and Y.)

RULE.—Multiply the quantity by the numerator of the fraction and divide by the denominator.

2. To reduce a number or a fraction of any denomination to the fraction of another denomination. (Z, test 1, 2, 3.)

RULE.—Put the former over the latter in the form of a fraction and reduce both terms to the same denomination.

Find the value of

V

1. $\frac{7}{60}$ of £1. 2. $\frac{7}{40}$ of a £1. 3. $\frac{33}{75}$ of £5. 4. $\frac{1}{5}\frac{3}{4}\frac{1}{3}$ of £8. 5. $\frac{33}{100}$ of £1.

W

1. $\frac{1}{3}\frac{2}{5}$ of half-a-crown + $\frac{5}{12}$ of a sovereign minus $\frac{1}{3}$ of three florins.

2. $\frac{5}{100}$ of £10 + $\frac{7}{20}$ of $3\frac{1}{2}$ of 16s. 8d.

3. $\frac{3}{5}$ of half-a-sovereign + $\frac{7}{10}$ of one shilling + $\frac{3}{10}$ of half-a-crown.

4. To the difference between $\frac{3}{5}$ of 1cwt. and $1\frac{1}{4}$ of a ton add $\frac{1}{3}$ of 15 tons 8cwt. 12lbs.

5. £620 + (£$11\frac{4}{5}\frac{7}{0}$ × $9\frac{4}{7}$ × $2\frac{1}{1}\frac{1}{7}$).

X

1. Take $7\frac{1}{3}$ of an hour from $\frac{3}{10}$ of a day.

2. $\frac{1}{3}$ of £1470 3s. 3d. + $13\frac{7}{17}$ of £7 5s. 10d.

3. $\frac{1}{7}$ of £414 9s. $5\frac{1}{2}$d. + £$3\frac{5}{8}$ + $9\frac{3}{10}$s. + $5\frac{3}{4}$d.

4. $\frac{1}{2}$ of £7 7s. 7d. + £$3\frac{1}{8}$ + $7\frac{1}{4}$s. + $4\frac{3}{4}$d.

5. $\frac{1}{4}$ of £1 + $3\frac{3}{4}$ of $1\frac{1}{1}\frac{9}{6}$ of $\frac{3}{10}$ of $4\frac{1}{2}$d. + $2\frac{3}{5}$ of $1\frac{3}{4}$d. of $8\frac{3}{4}$d.

Y

1. $\frac{7}{80}$ of an acre + $\frac{3}{4}$ of 3 roods 16 perches − 1 rood.

2. $\frac{3}{7}$ of 3cwt. 1qr. 14lbs.

3. $\frac{1}{11}$ of 91 acres 3 roods 36 poles $2\frac{3}{4}$ yards − $\frac{1}{2}$ of 32 poles 28 yards − $\frac{3}{5}$ of 6 acres 2 roods 17 perches $25\frac{1}{2}$ yards.

4. $\frac{1}{2}$ of £$9\frac{3}{4}$ + $\frac{3}{5}$ of a guinea + $\frac{3}{5}$ of a £1 − $\frac{1}{2}$ of a crown + $\frac{5}{12}$ of 1s.

5. $7\frac{3}{4}$ of $365\frac{1}{4}$ days + $3\frac{2}{10}$ of $\frac{5}{6}$ weeks + $\frac{3}{4}$ of $5\frac{1}{5}$ hours − $\frac{1}{3}$ of 6339 days 30 minutes.

Z

1. Reduce 1s. 11d. to the fraction of 19s. 6d.

2. Reduce 5s. 10d. to the fraction of £1 5s. 8d.

3. Reduce 10s. 9d. to the fraction of 3 times £2$\frac{3}{4}$.

4. Reduce 19 threepences to the fraction of 145 fourpences.

5. Reduce 20lbs. 15oz. to the fraction of 3qrs. 2lbs. 14oz.

Test 1

1. Reduce £32 19s. 0d. to the fraction of a guinea.

2. What fraction of 6cwt. 1qr. 8lbs. is 1cwt. 17lbs.?

3. Reduce 1cwt. 3qrs. 16lbs. to the fraction of 19cwt. 32lbs.

4. Bring 20lbs. 15oz. to the fraction of 3qrs. 2lbs. 14oz.

5. What fraction of 2 miles 1 furlong 36 poles 3 yards is 2 furlongs 15 poles 2$\frac{1}{2}$ yards?

Test 2

1. Reduce 249 threepences to the fraction of 540 fourpences.

2. What fraction is 5 furlongs 24 poles 3 yards of 3 miles 3 furlongs 14 poles 2 yards?

3. Reduce two hundred and one shillings to the fraction of a sovereign.

4. What fraction of 3 years 270 days is 48 weeks 6 days?

5. Reduce £3 11s. 9d. to the fraction of £18 18s. 0d.

DECIMALS.

DEFINITION.—A decimal, or a decimal fraction, as it is commonly called, is one whose denominator is 10, 100, or some other power of ten.

Express the following Decimals as Vulgar Fractions in Lowest Terms.

RULE.—Put the decimal, taking away the point for the numerator, and 1 with as many cyphers as there are figures in the decimal for the denominator, and then reduce to their lowest terms.

	A	B	C	D
1.	2·5	48·5	9·8	9·125
2.	3·2	520·4	10·05	10·0125
3.	4·5	6·125	11·03125	1199·1
4.	5·6	7·25	12·03125	12·0125

Express as decimals the following :—

	E	F	G	H
1.	$\frac{24}{100}$	$\frac{25}{100}$	$\frac{413}{10000}$	$\frac{6125}{1000000}$
2.	$\frac{269}{1000}$	$\frac{36}{1000}$	$\frac{57075}{100000}$	$\frac{71491}{10000000}$
3.	$\frac{4319}{10000}$	$\frac{48}{10000}$	$\frac{654}{100000}$	$\frac{84856}{100000000}$
4.	$\frac{52035}{100000}$	$\frac{575}{100000}$	$\frac{749}{1000000}$	$\frac{9546378}{10000000000}$

Addition of Decimals.

RULE.—Put the numbers one under the other so that the decimal points are in the same vertical line, then add up as in Simple Addition, and in the answer place a decimal point under the other decimal points.

I

1	2	3	4
·01	·102	·0135	·36142
·13	·019	·0024	·00006
·1	·2	·0269	·21937

J

1	2	3	4
1·01	6·872	·0034	3·18
·15	3·217	2·014	4·087
·4	·081	·01	·4396
·7	21·651	2·175	44·82375

K

1. ·001 + 7·35 + 2·58 + 25·526.
2. 8000·0008 + 200·002 + 40·04 + 33380·2.
3. 3010·0103 + 203·302 + 43·34 + 1844·86795.
4. ·01 + ·034 + ·2976 + ·00879 + 5·771434.

L

1. 187·621 + 3·8701 + ·0803 + ·0101 + 236·7421.
2. 21·301 + ·0007 + ·20306 + 813·576 + 4468·45969.
3. ·8 + ·031407 + 319 + ·407 + ·186447 + 316.
4. 1·0000307 + 7012·6 + 9 + 8·0138942 + 182·2215.

Subtraction of Decimals.

RULE.—Put the numbers as in Addition but the less under the greater, and subtract as in Simple Subtraction. In the answer put the decimal point under the other points.

M

1	2	3	4
8·06	30·005	6·1	51·63
5·72	5·76	1·8168	·10975

N

1. 93 – 59·361
2. 900·101 – 463·6966
3. ·8 – ·23935
4. ·09 – ·022722

O

1. 6·37 – ·005752
2. ·0701 – ·0629579
3. 1·00012 – ·91849568
4. ·083182736 – ·074

P

1. 800 – 351·4744
2. 57·6 – ·01915
3. 1 – ·932116
4. ·100001 – ·0927882

Multiplication of Decimals.

RULE.—Arrange and multiply the decimals as in Simple Multiplication, and mark off as many decimal places in the product as there are decimal places in multiplyer and multiplicand together.

Q

1. 260·4 × ·9
2. 615·2 × ·06
3. 48·04 × ·09
4. 1·1213 × ·5

R

1. 57·58 × ·0012 2. 395·99 × ·00002 3. ·14816 × ·006 4. 2·4093 × ·00004

S

1. 1029·4382 × ·63
2. 49 × 1·5441573
3. 56 × ·15441573
4. 102·64917 × ·0093

T

1. 291·8353 × ·0000396
2. 1·92 × ·0000063769
3. ·02240011 × ·00598
4. ·004480022 × ·00322

Division of Decimals.

RULE.—If the given divisor is not a whole number, make it so by taking its decimal point away and remove the decimal point of the dividend as many places to the right, adding, if necessary, as many cyphers as there were decimal places in the divisor, then divide as in Simple Division, and when the decimal point is got to in the work, place a decimal point in the quotient and continue the process of division.

U

1. ·72 ÷ 3 2. ·5304 ÷ 1·7 3. ·044084 ÷ 1·03 4. ·0345 ÷ 6

V

1. 1·072 ÷ ·4 2. ·7824 ÷ ·2 3. 2569·9416 ÷ 6 4. 3·7478315 ÷ ·07

W

1. 7·254 ÷ 3·1 2. 1·737393 ÷ ·049 3. ·02552904 ÷ ·0054 4. 35·7105 ÷ 70

X

1. 2·036544 ÷ ·48 2. ·02648205 ÷ ·049 3. 3·1518 ÷ 50 4. ·393309 ÷ 54

Express the following Vulgar Fractions as Decimals:—

RULE.—Divide the numerator by the denominator, as in division of decimals.

Y	Z	Test 1	Test 2
1. $\frac{7}{25}$	1. $2\frac{13}{50}$	1. $\frac{6}{25}$	1. $\frac{42}{125}$
2. $\frac{68}{200}$	2. $\frac{69}{200}$	2. $\frac{9}{250}$	2. $\frac{4278}{6250}$
3. $\frac{68}{1250}$	3. $\frac{67}{1250}$	3. $\frac{99}{6250}$	3. $\frac{2081}{4000}$
4. $\frac{10204}{40000}$	4. $\frac{21}{4000}$	4. $\frac{23}{4000}$	4. $\frac{39}{62500}$

CIRCULATING DECIMALS.

DEFINITION.—When vulgar fractions cannot be reduced to decimals exactly, and when a remainder continually occurs, we call such circulating decimals.

NOTE. — The names "circulating," "infinite," "recurring," or "repeating" are commonly used to mean exactly the same thing.

The part repeated is called the repetend or period.

Pure Circulators are those in which the repetend begins immediately after the decimal point.

Mixed Circulators are those in which the repetend is preceded by one or more decimal places which are not repeated.

Reduce the following Vulgar Fractions to Circulating Decimals.

A	B	C	D
1. $\frac{4}{15}$	1. $2\frac{21}{99}$	1. $2\frac{13}{90}$	1. $\frac{4333}{10000}$
2. $\frac{103}{330}$	2. $3\frac{301}{330}$	2. $\frac{157}{450}$	2. $\frac{63}{11250}$
3. $\frac{1}{14}$	3. $4\frac{73}{600}$	3. $\frac{111}{2475}$	3. $\frac{731}{99000000}$

REDUCTION OF CIRCULATING DECIMALS TO VULGAR FRACTIONS.

1. To reduce a pure circulator to a vulgar fraction.

RULE.—Make the repetend the numerator of the fraction, and for the denominator put down as many 9's as there are figures in the repetend.

2. To reduce a mixed circulator to a vulgar fraction.

RULE.—From the given mixed circulator subtract the number expressed by the figures which do not circulate. The remainder is the numerator. For the denominator put down as many 9's as there are figures in the repetend, and as many cyphers as there are figures which do not circulate.

E	F	G
1. $6{\cdot}0\dot{7}14285$	1. $7{\cdot}8\dot{3}$	1. $2{\cdot}1\dot{6}$
2. $7{\cdot}\dot{4}$	2. $8{\cdot}8\dot{3}$	2. $3{\cdot}\dot{7}14285$
3. $8{\cdot}8\dot{3}$	3. $9{\cdot}2857\dot{1}\dot{4}$	3. $4{\cdot}8\dot{3}$

H

1. $3{\cdot}\dot{2}85714$ 2. $4{\cdot}1\dot{6}$
3. $5{\cdot}0120\dot{6}8965517241379310344827586206$

Addition of Circulating Decimals.

RULE.—Repeat the repetends to three figures beyond the number required to be correct, then add up as in addition of decimals.

Add correctly to six places of decimals the following:—

I

1. $.\dot{0}\dot{9} + 9{\cdot}0\dot{4}\dot{6} + 41{\cdot}3\dot{2} + {\cdot}004\dot{6}3742\dot{1} + 154{\cdot}2\dot{1} + 113{\cdot}5\dot{3}607301$
2. $294{\cdot}\dot{0}8727301 + 49{\cdot}\dot{5} + {\cdot}26\dot{0}\dot{9} + {\cdot}7\dot{3}4\dot{2} + {\cdot}\dot{4}12\dot{9} + 67{\cdot}\dot{1}$
3. $511{\cdot}30\dot{3}4990\dot{0}2 + {\cdot}\dot{0}0014\dot{6}2 + {\cdot}\dot{8} + {\cdot}01\dot{4}\dot{6} + 2{\cdot}3\dot{4}\dot{5} + 5{\cdot}700\dot{4}0000\dot{1}$
4. $\cdot\dot{7}\dot{9} + 182{\cdot}4489\dot{1}500\dot{3} + 412{\cdot}\dot{0}\dot{2} + {\cdot}3\dot{6}41\dot{2} + 40{\cdot}0\dot{2}43\dot{7} + {\cdot}76\dot{9}2\dot{5}$

J

1. $2{\cdot}042 + 24{\cdot}\dot{4}1\dot{8} + 1{\cdot}009 + 3{\cdot}1\dot{6} + {\cdot}735\dot{4} + 586{\cdot}8714\dot{9}8000\dot{9}$
2. $.\dot{6} + 4{\cdot}\dot{1}84794001 + 731{\cdot}\dot{4} + {\cdot}42\dot{9} \times 9{\cdot}2\dot{3}\dot{7} + 3{\cdot}0\dot{6} + {\cdot}5364252\dot{6}$
3. $\cdot13\dot{8} + 800{\cdot}008\dot{4}9713\dot{3} + 42{\cdot}\dot{6}\dot{3} + 2{\cdot}0\dot{6} + 2{\cdot}4\dot{1}\dot{8} + {\cdot}\dot{1}42857 + 1{\cdot}1550\dot{1}\dot{7}$
4. $749{\cdot}2\dot{6} + {\cdot}57\dot{1}2540\dot{2} + 37{\cdot}2\dot{3} + 7{\cdot}\dot{7}\dot{2} + {\cdot}29\dot{7} + 32{\cdot}4\dot{1} + 74{\cdot}0367 + 12{\cdot}7\dot{5} + 3{\cdot}9\dot{7}\dot{3}$

Subtraction of Circulating Decimals.

RULE.—Repeat the repetends to two figures beyond the number required to be correct, then subtract as in subtraction of decimals.

K

1. $\cdot4\dot3 - \cdot075$ 2. $\cdot83\dot1 - \cdot39\dot8$ 3. $\cdot56\dot0\dot1 - \cdot034\dot8$ 4. $\cdot619\dot3\dot0 - \cdot001\dot0\dot8$

L

1. $3\cdot\dot1 - \cdot98\dot9\dot6$ 2. $3\cdot\dot3 - \cdot15\dot1\dot1\dot5$ 3. $1\cdot\dot0\dot0\dot1 - \cdot57\dot2$ 4. $7\cdot\dot0\dot1 - 1\cdot\dot6\dot5\dot6\dot0$

Multiplication and Division of Circulating Decimals.

RULE.—Reduce the circulators to vulgar fractions, then multiply or divide, and reduce the result to a decimal.

M

1. $1\dot3 \times 2$ 2. $10\cdot8 \times \cdot\dot3$ 3. $\cdot0\dot4 \times 2 \times 5\cdot5$ 4. $\cdot075 \times 3 \times 2\cdot\dot3$

N

1. $\cdot\dot0\dot3 \times 1\cdot75 \times 4$ 2. $3\cdot2\dot7 \times 3\cdot6 \times \cdot2\dot7$ 3. $4\cdot\dot6 \times \cdot\dot0\dot9 + \cdot0\dot2$ 4. $\cdot\dot0\dot9 \times 4 \times 1\cdot5 + 042$

O

1. $2\cdot\dot6 \div 11$ 2. $(\cdot0\dot3 \div \dot0\dot9) + \cdot0\dot3$ 3. $\cdot0\dot6 \div 00138$ 4. $\cdot\dot0\dot8 \div \cdot\dot1428\dot5\dot7$

P

1. $(\cdot64 \cdot 375 \times 16) \div (1\cdot25 \times 1\cdot6)$
2. $\cdot\dot0\dot9 \div \cdot\dot1428\dot5\dot7$
3. $\cdot\dot1320754716981 \div \cdot1\dot6$
4. $(37\cdot4\dot5 \div 45) + \cdot01\dot5$

Find the value of—

Q

1. £·125 2. £·1875 3. £4·075 4. £5·75

R

1. £690·475 2. 7·375s. 3. 8·2916s. 4. 9·625s.

S

1. £·3 + 3s. + 3·5d.
2. 5·54 crowns − ·45s. + £6 6s. 11·25d.
3. 9·1875 of 1s. 4d. + ·4 of £18 + ·075 of £2 10s. 0d.
4. £3·7885416 + £914 6s. 9·75d.

T

1. Reduce ·88125 of an acre to roods and perches.
2. To the quotient of 45·625 cwt. divided by ·73 add 425 tons 1 cwt.
3. To the difference between 3·0625 half guineas and ·02175 of £50 add ½ of £1039 4s. 0·25d.
4. £6·475 + ⅛ of ¾ of ⅛ of £3420.

U

1. Take 1·25 of a mile from 1·$\dot{3}$ of a league.
2. ·634375£ + ·325 of 30s. + £2 15s. 1·5d. + ·025 of £1 5s.
3. 4·075 tons + ·571428 of a quarter.
4. £529 11s. 1·5d. + 2·14$\dot{5}$ of 5s. 8$\frac{3}{4}$d.

V

1. Reduce £2 8s. to the decimal of £1.
2. Reduce £3 12s. to the decimal of £1.
3. Reduce £4 16s. to the decimal of £1.
4. Reduce £5 15s. to the decimal of £1.

W

1. Reduce 6s. 3·6d. to the decimal of £1.
2. Reduce £10 12s. to the decimal of £2 10s
3. Reduce £15 15s. to the decimal of £3.
4. Reduce £1 7s. to the decimal of £2 1s. 8d.

X

1. Reduce 1 ton 14cwt. 2qrs. to the decimal of 5 tons.
2. What decimal of 1 mile 4$\frac{1}{2}$ furlongs is 5 furlongs 14 poles?
3. What decimal of 5cwt. 1qr. 12lbs. is 3cwt. 3lbs.?
4. Reduce 27 shillings to the decimal of £2$\frac{1}{20}$.
5. Reduce £3 14s. 4$\frac{1}{2}$d. to the decimal of £5 4s. 2d.

SIMPLE INTEREST.

DEFINITION. *Interest* is the allowance paid for the use of money, and is calculated at a certain rate on £100 per year.

The sum lent is called the Principal.

The sum allowed for use of Principal is called the *Interest*.

The Principal and Interest added together is called the Amount.

RULE.—Multiply the Principal by the rate per cent, and also by the number of years for which interest is wanted, and divide by 100.

Y

1. Find the simple interest on £1605 11s. 8d. for 1 year, at 20 per cent.
2. Find the simple interest on £4522 15s. 0d., at 10 per cent for 1 year.
3. What is the simple interest on £11508 for 1 year, at 5 per cent.
4. Find the simple interest on £16809 11s. 8d., at 4 per cent for 1 year.
5. At 2 per cent for 1 year find the simple interest on £37111 17s. 6d.

Z

1. Find the simple interest on £12362 6s. 8d. for 2 years, at 5 per cent.

2. What is the simple interest on £13654 16s. 8d. for 5 years at 2 per cent?

3. Find the simple interest on £7352 1s. 8d., at 5 per cent for 4 years.

4. At 5 per cent for 5 years, what is the simple interest on £6241 9s. 8d.?

5. What is the simple interest on £4120 15s. 10d. for 10 years, at 4 per cent?

Test 1.

1. At what rate per cent will £20640 yield £516 in 1 year?

2. At what rate per cent will £18000 amount to £18630 in 1 year?

3. In how any years will £456 5s. amount to £517 16s. 10½ at 3 per cent?

4. At what rate per cent will £5000 amount to £5280 in 1 year?

5. In how many years will £20401 13s. 4d. amount to £21727 15s. 6d. at 1 per cent?

EXAMINATIONS.

A

1. Reduce $\frac{44}{55}$ to a decimal.

2. Find the L.C.M. of 3, 9, 6, and 12.

3. Find the value of $\frac{3}{8}$ of a guinea.

4. If 9 persons spent in eight months £120, what sum will it take to last 26 persons for twelve months?

5. Reduce $\frac{2112}{1760}$ to its lowest terms.

6. Find the value of $\frac{7}{8}$ of a guinea + $\frac{3}{15}$ of £1 + $\frac{5}{16}$ of a crown + ·75 or half a sovereign + £6 6s. 1½d.

7. By selling goods at 5 per cent profit, I gained £44 16s. What did I pay for them?

B

1. From $\dot{3}$ take $\dot{0}\dot{7}$.

2. Reduce ·88125 of an acre to roods and perches.

3. Find the L.C.M. of 9, 16, 27, and 12.

4. Reduce £10 7s. $1\frac{7}{20}$ to the decimal of £19 14s. 6d.

5. If a man bottles off ¼ of 2 pipes of wine into pints and the rest into quarts, how many of each will he have?

6. If the Midland Railway Company charge £2 for the conveyance of 19 cwt. for 30 miles, what weight ought they to carry 42 miles for a guinea?

7. Find the value of 9·1875 of 1s. 4d. + $\cdot\dot{4}$ of £18 + ·075 of £2 10s.

C

1. Reduce $\frac{4}{7}\frac{1}{7}$ to a decimal.

2. If $(3\frac{3}{4} - 2\frac{2}{5})$ of an estate cost £440, what sum must be paid for the whole estate?

3. A father leaves ·48 of his money to his younger son, and the remainder to his elder son; the difference between their shares is £23. What was the sum left?

4. A room is 40 ft. broad, 99 feet long, and 5 ft. deep, how many bales can be put in, each bale being 2 ft. 8 in. broad, $3\frac{1}{2}$ ft. long, and $2\frac{1}{2}$ ft. deep, and leaving a way 4 ft. broad?

5. Find the G.C.M. of 21518 and 40810.

6. If 18·75 acres can be ploughed in $12\frac{1}{2}$ weeks by 24 horses, in how many weeks will 18 horses plough 9·375 acres?

7. Find the value of £95 3s. $8\frac{1}{10}$d. + ·03 of 15s. + $1\frac{1}{11}$ of half-a-crown + $\frac{7}{11}$ of £1 + ·25 of £1 12s. 4d.

D

1. At what rate per cent per annum will the interest on £301 13s. 4d. be £33 18s. 9d. in $2\frac{1}{2}$ years?

2. Reduce 7cwt. 3qrs. 14lbs. to the decimal of $\frac{3}{4}$ of a ton.

3. Divide 3051 by 4·5.

4. Find the value of ·3979$\dot{1}\dot{6}$ of £1.

5. Reduce $\frac{3}{4}$ of $\frac{1}{9\frac{1}{2}}$ of $£1\frac{9}{11} + \frac{3}{5}$ of ·375 of $£\frac{3}{4} + \frac{3}{5}$ of $·4\dot{2}\dot{9}$ of 8s. 3d. to the decimal of £5.

6. If 10 horses and 45 sheep eat 11 tons 5cwt. of hay in 10 days, how much hay will 12 cows and 18 sheep eat in a fortnight (5 horses eat as much as 9 sheep)?

7. Find the value of ·5 of 1s. $10\frac{1}{2}$d. + $\frac{7}{9}$ of a guinea + $\frac{3}{11}$ of £1 + $\frac{5}{11}$ of a crown + ·75 of a sovereign + £8 12s. 6d.

E

1. Reduce to lowest terms $\frac{6}{10\,8\,14}$.

2. To $\frac{4}{5}$ of £1 add $\frac{2}{11}$ of 1d. + $\frac{4}{7}$ of a crown $\frac{3}{7}$ of $\frac{1}{9}$ of a guinea.

3. A man left to A $\frac{2}{3}\frac{3}{5}$ of his property, to B $\frac{1}{2}\frac{3}{5}$ of the remainder, and the remainder to C. A got £1690 more than B. Find B's share.

4. What will £1200 amount to in 4 years at 10 per cent Simple Interest?

5. Find the value of 1·74375 of 10s.

6. Reduce 3s. $8\frac{1}{2}$d. to the decimal of £1 (to 4 places of decimals.)

7. Find the L.C.M. of 4, 19, 2, 13, and 8.

F

1. If in 3 months £2000 gains £50, what sum will £9000 gain in 1 yr. 2 months at the same rate?

2. Find the value of $(13_{\frac{4}{7}\frac{3}{5}\frac{1}{8}}$ of 2 cwt. 2 qrs.) − 2 oz.

3. What will £1125 amount to in 4 years at 3 per cent?

4. Reduce $·0\dot{2}3\dot{5} \times ·0\dot{5}\dot{8}$ to six places of decimals.

5. Find the L.C.M. of 40, 17, 28, 119, 21, and 68.

6. Required the content of a table 12 ft. 6 inches long, and 1 ft. 3 inches broad.

7. What decimal of a week is 1 day 4 hrs. 30 minutes (Reduce to 4 places of dec.)

G

1. Divide ·030576 by ·091.

2. What decimal of £3 is $\cdot\dot{1}2\dot{3}$ of 4s. $7\frac{1}{3}+\cdot12\dot{9}$ of £$\cdot625+\cdot0\dot{1}$ of £1 13s. 9d. (Find to 4 places of decimals).

3. What is the time past noon at $\frac{4}{5}$ the time to midnight?

4. Find the value of £$\cdot3+\cdot\dot{3}$ shillings + 3d.$\cdot5$.

5. From $12\frac{1}{2}$ yds. of cloth take $4\frac{9}{10}$ yds. What length remains?

6. If 12 men, 15 women, and eighteen boys can do a piece of work in 12 days of eight hours each, how many hours and minutes will 15 men and forty-eight boys have to work daily to do twice as much work in twenty days (one man = 2 women, and 1 woman equals 2 boys)?

7. Add together $\frac{7}{11}+6\frac{1}{3}+\frac{1}{12}+\frac{1}{11}+\frac{9}{14}$.

H

1. The net rental of an estate, after deducting 7d. in the £ for Income Tax and 5 per cent on the remainder for the expenses of collecting, is £959 3s. 8d. Find the gross rental.

2. Divide $\frac{1}{3}$ of $5\frac{3}{8}$ by 2.

3. Find the value of 6·15 of 2 dwts.

4. Multiply $\cdot0\dot{5}\dot{8}$ by $\cdot0\dot{2}3\dot{5}$ (Give ans. to 6 places of decimals).

5. Find the worth of ·359375 of 40 shillings.

6. Find the value of $109\frac{1}{4}$s. $+1\frac{1}{4}$ of £1 $+\frac{5}{3\,5}$ of £78 1s. 2d. $-12\frac{1}{2}$ of 2s. 6d.

7. What will £1200 amount to in 4 years at 10 per cent, simple interest.

I

1. If an estate is on sale at £50 per acre. What decimal part of an acre can be bought for £12?

2. Reduce $3\frac{1}{2}$ shillings to the decimal of $\frac{5}{11}$ of a guinea.

3. Reduce 10d. to the decimal of £1.

4. At the end of 5 years a sum of money amounted to £656 5s. at 5 per cent simple interest. What was the sum?

5. Find the G.C.M. of 9984 and 16848.

6. If $1\frac{1}{12}$yds. be taken from a piece $8\frac{3}{4}$yds. long. What length remains?

7. Reduce to the decimal of £5 the following amount $\frac{3}{4}$ of $(1\div9\frac{1}{2})$ of £1 18s. $+\frac{2}{3}$ of ·375 of six halfcrowns $+\frac{2}{5}$ of $\cdot42\dot{9}$ of 8s. 3d.

J

1. How much will twenty men receive for seven days work, if fourteen men are paid twenty-six pounds for ten days?

2. Divide the greatest of the following fractions by the least $\frac{3}{14}$, $\frac{5}{2\,6}$, $\frac{3}{4\,5}$, and $\frac{9}{6\,5}$.

3. Find the L.C.M. of 4, 15, 3, 10, and 7.

4. Take $\frac{7}{1\,2}$ of a crown from $\frac{5}{2\,4}$ of a guinea $+\frac{1}{2}$ of 8s. 9d.

5. Reduce to its lowest terms $\frac{4\,2\,7}{1\,5\,2\,6}$.

6. Find the value of 2cwt. $2\frac{1}{14}$qrs. $+\frac{7\,8}{3\,3\,1}$ of 1ton 77lbs.

7. Find the value of ·5 of £159 1s. 7d. $+£3\frac{5}{8}-(\frac{3}{7}$ of £2 10s. 2d. $+\frac{1}{2}$ of 14 halfcrowns.)

K

1. At what rate will the interest on £4127 10s. amount to £92 17s. 4½d. in one year?

2. Find the value of $\frac{3}{7}$ of 3cwt. 1qr. 14lbs.

3. In how many years will £456 5s. amount to £517 16s. 10½d. at 3 per cent?

4. A clock which is 4 minutes $8\frac{9}{37}$ seconds too fast at half-past nine on Monday, loses 2 minutes 45 seconds daily. What will be the time indicated by the clock at a quarter past five p.m. on the following Thursday?

5. Reduce $\frac{9}{13}\frac{11}{88}\frac{5}{0}$ to its lowest terms.

6. Subtract $(2\frac{3}{5}+2\frac{5}{10})$ from $12\frac{1}{2}$.

7. Find the worth of $£848\frac{1}{4}+£\frac{9}{10}-\frac{5}{8}$ of a guinea.

L

1. Find the difference between $1\cdot\dot{3}$ of a league and 1·25 of a mile.

2. What is the simple interest on £140 for 1 year at $\frac{1}{8}$ per cent?

3. What is the hour when the time past noon is equal to two-thirds of the time to midnight?

4. At the end of 10 years a sum of money amounted to £656 5s. at 2½ per cent simple interest. What was the sum?

5. Find the G.C.M. of 9984 and 16848.

6. Reduce $\frac{12}{65}\frac{13}{85}\frac{21}{80}$ to its lowest terms.

7. Add together £86 0s. $10\frac{1}{12}$d. $+\frac{1}{3}$ of $\frac{4}{5}$ of 5s. 5d. $+\frac{1}{3}$ of $\frac{2}{7}$ of 2s. 1d. $+\frac{4}{5}$ of $\frac{1}{12}$ of 4s. 2d.

M

1. Find the value of $\frac{3}{5}$ of $\frac{7}{9}$ of $\frac{2}{3}\frac{0}{1}$ of 5 guineas.

2. Find the worth of ·16875 of £1.

3. Reduce $\frac{3}{7}$ to three places of decimals.

4. If $\frac{1}{32}$ of a ship be worth twenty-three pounds, find the value of the ship.

5. Find the L.C.M. of 2·5, 9·21, and 15.

6. Reduce $\frac{87.6}{6\,5\,0\,4}$ to its lowest terms.

7. By selling a number of machines, which cost £50 for £52½, I gained £44 16s. What did I pay for them?

N

1. Divide ·70566 by ·3095.

2. What is a person's net annual income if his estate produce £400 per year, and the land tax be assessed at 2s. 9d. in the pound?

3. Find the value of a farm if $(2\frac{3}{4}-1\frac{5}{8})$ of it cost £421 13s. 4d.

4. Reduce £10 7s. $1\frac{7}{10}$d. to the decimal of £19 14s. 6d.

5. In how many days will a person have a claim £98 2s., if his annual salary is £54 15s.?

6. Find the worth of $\frac{3}{4}$ of $\frac{4}{5}$ of $\frac{3}{5}$ of £158 12s. + £11 17s. $9\frac{3}{20}$d.

7. Find the simple interest on £345 for two years at $\frac{1}{12}$ per cent.

O

1. $720+57\cdot7220267+7\cdot2+\cdot0027-\cdot0049162$.

2. Find the value of £86 3s. 2d. $+\frac{5}{24}$ of 1 guinea $-\frac{7}{12}$ of a crown.

3. How long will a herd of cattle be in going thirteen miles and eight hundred and eighty yards, at the rate of a mile-and-a-half in 1 hour 5 minutes 6 seconds?

4. If 7 men reap an oblong field 1920 feet long and 900 feet broad in 9 days of 12 hours, how many hours a day must 10 men work to reap a field 1200 feet long and 1050 feet broad in $5\frac{1}{2}$ days?

5. Find the worth of $(13\frac{5}{14}\frac{3}{80}$ of 2cwt. 2qrs.) less 2oz.

6. What will £1125 amount to in 3 years at 4 per cent?

7. Reduce $\cdot 0\dot{5}\dot{8} \times 0\dot{2}\dot{3}\dot{5}$ to 6 places of decimals.

P

1. Find the difference between 2·3125 of 8s. and $\frac{3\frac{1}{2}}{1\frac{1}{12}}$ of $\frac{1}{11\frac{9}{20}}$ of £2.

2. Divide the greatest fraction by the least of the following $\frac{9}{16}$, $\frac{3}{4\frac{5}{9}}$, $\frac{5}{1\frac{1}{4}}$, and $\frac{5}{2\frac{1}{6}}$.

3. How many weeks would it take 12 men to build 12 rows of houses working 10 hours a day, if 30 men working 8 hours a day can build 4 rows of houses in 8 weeks?

4. When is the time past noon $\frac{1}{5}$ of the time to midnight?

5. Find the value of 583 tons 8cwt. 2qrs. 4lbs. + 3·27 of $\frac{3}{4}$ of 27 tons.

6. Simplify $\frac{2\frac{1}{2} - 1\frac{1}{3}}{1\frac{7}{8} \times 1\frac{2}{5}} + 728\frac{3}{4}$.

7. Add together $5\frac{1}{3}\frac{7}{6} + (3\frac{5}{6} - 1\frac{3}{5}) + (\frac{3}{2}\frac{4}{5}\frac{5}{0} + \frac{9}{7}\frac{5}{0} + \frac{1}{4} + \frac{3}{4}\frac{3}{2}.)$

Q

1. What decimal part of an acre can I buy for £12 at the rate of £50 an acre?

2. What decimal of a guinea is 7s. 6d.? (Find to three places.)

3. Reduce 3s. 4d. to the decimal of £4.

4. If a person with a capital of £2000 gains £50 in 3 months, what sum will he gain with a capital of £4500 in 14 months?

5. How far should 2 tons 14cwt. 1qr. 4lbs. be carried for £68, if 17cwt. 16lbs. be carried 2033 miles for £68?

6. Reduce to an improper fraction $39\frac{1}{1}\frac{3}{5}\frac{7}{2}$.

7. Simplify $\frac{2\frac{5}{9} - \frac{1}{1\frac{2}{3}}}{\frac{1}{1\frac{5}{6}} \times \frac{5}{1\frac{1}{2}}} - 1\frac{5}{4\frac{1}{2}}$.

R

1. Find the total length of a pole, $\frac{1}{7\frac{1}{2}}$ of which is in the mud, $\frac{1}{7}$ in the water, and the rest (22 feet) above the water.

2. If £58 13s. $9\frac{3}{4}$d. be the tax on £335 7s. 6d., what is that in the £?

3. If 3 were $\frac{1}{2}$ of 10, what would be one-fourth of twenty?

4. Find the L.C.M. of 13, 8, 5, 52, and 4.

5. If 37 yards of silk can be bought for £30 19s. 9d., how many yards ought I to get for £517 11s. 6d?

6. What amount ought to be paid for the keep of 272 horses for 2 years, if 17 horses are kept 8 years for £187 6s. $4\frac{1}{2}$d?

7. Find the worth of £80 14s. $3\frac{1}{2}$d. + $\frac{\frac{1}{3} \times \frac{1}{2} \times 6}{\frac{1}{2} - \frac{1}{3}}$ of 5 florins.

S

1. At what rate will the interest of £4127 10s. 0d. come to £92 17s. 4½d. in 1 year Simple Interest?

2. After drawing ¼ from a cask of wine for A; ⅓ of the remainder for B and ⅛ of the remainder for C, ·135 gallons are left. How many gallons were there in the cask at first.

3. In how many years will the interest £456 5s. 0d. amount to £517 16s. 10½d. at 3 per cent?

4. Reduce $\frac{837}{4554}$ to its lowest terms.

5. A clerk copied 7·5 of £100 – £1 6s. 2d., instead of ·75 of £100 + £1 6s. 2d. What was the amount of his error?

6. What are the wages of 2 men for 26 days if 4 men receive £64 4s. 0d. for 117 days.

7. If the expense of 7 persons for 3 months amount to 70 guineas, what will be the expense of twenty persons for 12 months at the same rate.

T

1. Find the value of ·325 of a mile.

2. Divide ·030576 by ·091.

3. At what rate per cent per annum will the interest on £301 13s. 4d. be £33 18s. 9d. in 2½ years.

4. Reduce $\frac{477}{4840}$ to its lowest terms.

5. Find the value of ½ of £770 4s. 11d. + $(\frac{3}{7} + \frac{5}{8})$ of 4 guineas + $(\cdot 0\dot{9} - \cdot \dot{0}\dot{1})$ of $£2\frac{1}{16} + (5{\cdot}05 \div {\cdot}005)$ of a crown.

6. Find the sum of $\frac{3}{5} + \frac{3}{8} + 3\frac{2}{3} + \frac{5}{7}\frac{2}{3} + 1\frac{1}{2}$.

7. If 4 men spend £229 9s. 0d. in 156 days, how many days ought £611 17s. 4d. to last 2 men?

U

1. Reduce $\frac{5}{3\frac{1}{2}\frac{1}{3}}$ to a decimal.

2. How many weeks would it take 12 men working 10 hours a day to build 3 rows of houses, if 30 men working 8 hours a day can build 1 row in 8 weeks?

3. Reduce to whole or mixed number $\frac{2652961}{520}$.

4. Simplify $\frac{4\frac{5}{12} \div 21\frac{1}{4}}{14\frac{1}{2} \div 5\frac{3}{11}} + 672\frac{3}{26}\frac{11}{4}$.

5. Find the value of $\cdot 39791\dot{6}$ of 20s.

6. Find the difference between $11{\cdot}7\dot{3}$ and $10{\cdot}91\dot{6}$.

7. How much hay will 12 cows and 18 sheep eat in a fortnight if 10 cows and 45 sheep eat 11 tons 5 cwt. of hay in 10 days (9 sheep = 5 cows).

STANDARD VII.

EXAMPLES IN MISCELLANEOUS RULES.

INCLUDING SIMPLE AND COMPOUND INTEREST, PERCENTAGES, AVERAGES, STOCK, DISCOUNT, SQUARE AND CUBE ROOT, &c.

[Definitions and Rules in Standard VII. work are omitted for want of space. The pupil is recommended to study the Definitions and Rules as laid down and explained by Barnard Smith, Colenso, or Melrose.]

A

1. Find the Simple Interest on £1711 at 5 per cent for 4 years.
2. What is the Simple Interest on £2241 for 5 years at 4 per cent?
3. At the end of 5 years a sum of money amounted to £656 15s. 0d. at 5 per cent. What was the sum?
4. What is the Simple Interest on £3150 at 5 per cent for 4 years
5. Find the Simple Interest for 5 years at 4 per cent on £3745.

B

1. £150 is put into a bank and £165 is withdrawn at the end of four years. What is the rate of Simple Interest per cent per annum?
2. At what rate per cent Simple Interest will $3\frac{1}{2}$d. produce $3\frac{1}{2}$s. interest in $33\frac{1}{3}$ years?
3. In how many years will £456 5s. 0d. amount to £517 16s. $10\frac{1}{2}$d. at 3 per cent?
4. Find the amount on £500 at 5 per cent for 1 year Simple Interest.
5. What is the amount of £600 for 3 years at 3 per cent Simple Interest?

C

1. At what rate per cent will £395 3s. 4d. yield £29 12s. 9d. in three years?
2. To the Compound Interest on £450 for 5 years at 6 per cent (interest payable half-yearly) add one-third of £598 10s. $10\frac{1}{2}$d.
3. To the Compound Interest on £500 at 3 per cent for six years add the Simple Interest on £1675 15s. 0d. for 8 years at $2\frac{1}{2}$ per cent.
4. Add the Simple Interest of £2191 2s. $3\frac{1}{4}$d. for 10 years at 2 per cent to the Compound Interest on £725 for 3 years at 4 per cent (interest payable quarterly.)

D

1. To the Simple Interest on £885 4s. $6\frac{1}{2}\frac{3}{4}$d. at $3\frac{1}{2}$ per cent for 6 years add the amount of £350 for $3\frac{1}{2}$ years at 15 per cent Compound Interest.
2. To the difference between the Simple and Compound Interest on £365 4s. $8\frac{1}{4}$d. for 3 years at 4 per cent add $\frac{1}{2}$ of £4312 18s. $2\frac{1}{2}$d.
3. Add the Simple Interest on £4467 8s. $4\frac{1}{1}\frac{3}{2}$d. for 3 years 4 months at 6 per cent to the Compound Interest on £300 for 3 years at $2\frac{1}{2}$ per cent.
4. To the Simple Interest on £4377 16s. $1\frac{1}{1}\frac{1}{2}$d. at 8 per cent for 2 years 6 months add the Compound Interest on £775 for $3\frac{1}{4}$ years at 5 per cent.

E

1. To the Simple Interest on £2921 15s. 2½d. for 9 years at 2⅔ per cent add the amount on £50 for 3 years at 5 per cent Compound Interest.

2. To the Simple Interest on £3387 14s. $0\frac{7}{16}$d. for 8 years at 6¾ per cent add the Compound Interest on £750 for 3 years at 2½ per cent Compound Interest.

3. Add one-sixth of £5130 2s. 11½d. to the difference between the Simple and Compound Interest on £83 6s. 8d. at 5 per cent for 4 years.

4. Add ⅔ of ⅓ of 4½ of £6477 15s. $9\frac{1}{16}$d. to the difference between the Simple and Compound Interest on £365 4s. 8½d. for 3 years at 4 per cent.

F

1. At what rate per cent should £522 17s. 6d. be lent for 3½ years to amount to £566 8s. 11½d. Simple Interest.

2. To the Simple Interest on £1242 17s. 3¾d. for 2 years at 10 per cent add the Compound Interest on £750 for 3 years at 4 per cent.

3. At what rate per cent will £301 13s. 4d. yield £33 18s. 9d. Simple Interest in 2½ years?

4. To the Simple Interest on £2097 3s. 7½d. at 5 per cent for 4 years add the amount of £95 16s. 8d. for 2 years at 2½ per cent Compound Interest.

G

1. How much per cent does a farmer lose who purchases one score of calves at five pounds two shillings and sixpence each and sells the lot for £99 18s. 3d.?

2. How much is seven-and-a-half per cent on 520?

3. How much per cent is 5·3̇ of 11080·5?

4. A person who is selling off announces a reduction of ten per cent. At what price had he marked shoes which he wanted to sell at 5s. 3d. per pair?

H

1. A grocer bought 2cwt. 1qr. 4lbs. of tea for £32. How much per cent. did he lose by selling it at 2s. 5½d. per lb.?

2. A farm is rented for £120. The farmer buys 50 horses for £625. At the year's end he sells the lot, having paid £12 10s. 0d. in extra keep. How much per head must he gain by them in order to realise his rent and expenses and ten per cent. upon his original outlay?

3. A grocer buys 56lbs. of tea at 4s. 2d. per lb. and mixes it with some which he got for 2s. 11d. per lb. How much of the 2s. 11d. tea must he mix with the 4s. 2d. tea that he may gain 20 per cent on his outlay and sell the mixture at 3s. 8d. per lb.

4. A father leaves the younger of his sons ·48 of his property, and to the elder the remainder. The difference between their respective shares is £23. What value of property was left?

I

1. A greengrocer buys apples at 9d. a dozen and sells them at 9 for a shilling. What does he gain per cent.?

2. Find the brokerage on £345 at ⅛ per cent.?

3. An auctioneer sold two horses to a farmer for £71 3s. 7½d. and £30 5s. 0d. respectively. The farmer sold them to a gentleman, the first at the same price he gave for it, and the other at a loss of ten per cent. The gentleman disposed of the first at the same price, but lost 10 per cent. on the other. How much did he get for them?

4. Find the prime cost of a number of sheep which were sold for 12 guineas at a profit of $22\frac{2}{11}$ per cent.

J

1. In Ebberston School there are 57 children below Standard III. and 39 girls and 54 boys above that Standard. What percentages are there of girls and boys over Standard III. in the school?

2. A gentleman in Lancashire left his property to his wife and three sons. To the eldest son he left one-half of his property, less £140; to his second son he left ¼ of his property and £20; to his youngest son he left ⅛ of his property, less £220; and to his wife he left one-fifth. Find the eldest son's share.

3. What is the true discount on £149 0s. 5d. at four per cent. due eleven months hence?

4. A certain number of women, half as many men, and three times as many boys as men earned £7 15s. 0d. in five days. Each man earned $\frac{3}{40}$£ each, each woman earned $\frac{1}{24}$£ each, and every boy $\frac{1}{30}$£ each. How many men, women, and boys were there?

K

1. At what rate per cent. will £29 12s. 9d. be yielded by £395⅓ in 3 years?

2. If 3 lots of teas are mixed in equal quantities, which cost 1s. 8d., 2s. 0d., and 2s. 4d. per lb., respectively, find the gain per cent. if the mixture is sold at 2s. 8d. per lb.?

3. If papers are bought by a person who receives 13 to the dozen for 9d., how much does he gain, per cent, by selling them at a penny each?

4. What ready money will discharge a debt of £528 9s. 0d. due 4 months hence, at 4⅞ per cent?

L

1. A number of men worked as many days as their own number. How many men were there if each man received $\frac{1}{6}$£ per day, and how much did each receive altogether, if their total wages amount to £7776?

2. What is the interest obtained for money invested in the 3 per cents at 66⅔

3. What is the quantity of stock purchased by investing £504 in the 3 per cents at 96.

4. If the length of a pane of glass be 11½ inches, and its breadth 5¼ inch, how many square feet of glass would there be in a window having 16 such panes.

M

1. Find the net cost of a ton of cheese on which I received £5 13s. 1½d. discount and sold it £4 1s. 9d. per cwt., making a profit of 9 per cent.

2. I get £35 income from the 5 per cents at 108. What did my stock cost?

3. Two persons buy respectively into the 3 and 3½ per cents with the same sums of money and get the same amount of interest, the 3 per cents being at 75. At what are the 3½ per cents?

4. A traveller receives a yearly salary of £72 17s. 8½d., and a commission of 5 per cent on the goods he sells. If he sells goods to the value of £485, what is his annual income?

N

1. A newsagent buys books at 9d. for 12 and sells them 9 for a shilling. What is his gain per cent?

2. C and D go into partnership; C put into the stock at first £2000, and at the end of 8 months £1000 more; D put in at first £750, and at the end of 4 months £3000, but took out £1300 at the end of 3 months more; at the year's end they had gained £1635. What amount should C receive of the profit?

3. A gentleman has ⅛ of his money in bank stock, ¼ in the 3 per cents, ⅛ in the five per cents, and £2300 in stock which gives 8½ per cent; his wife receives an income of £556. What is their total income?

4. How much stock must be bought at 88 per cent in order that by selling out when the stocks are at 90, twenty guineas may be gained?

O

1. If a gentleman transfers £100 stock from the 4 per cents at 90 to the 3 per cents at 72, find the alteration in his income?

2. Into which is it better to invest—the 3½ per cents at 96 or the 4 per cents at 111?

3. What income should I get by investing £1068 in the 4 per cents at 89?

4. Find the quantity of stock purchased by investing £504 in the 4 per cents at 96?

Extract the Square Root of:—

	P		Q		R		S
1.	576	1.	676	1.	$\frac{529}{6400}$	1.	·054756
2.	1296	2.	1541	2.	$\frac{961}{67081}$	2.	·099225
3.	2304	3.	222784	3.	$\frac{1681}{90000}$	3.	17·3056
4.	275625	4.	297025	4.	$\frac{2809}{251100}$	4.	33·0625
5.	427716	5.	459684	5.	$\frac{8731}{678976}$	5.	40·4496
6.	561001	6.	625681	6.	$\frac{99481}{177241}$	6.	5402·25
7.	746296	7.	802816	7.	$\frac{6889}{576000}$	7.	·692224
8.	962361	8.	927369	8.	$\frac{9409}{785961}$	8.	85·9329

Extract the Cube Root of:—

	T		U		V		W
1.	17576	1.	9800344	1.	$\frac{9261}{9800344}$	1.	13·824
2.	59319	2.	33076161	2.	$\frac{32761}{33076161}$	2.	·041063625
3.	5129172	3.	92345408	3.	$\frac{103823}{92345408000}$	3.	107·850176
4.	180362125	4.	200201625	4.	$\frac{185193}{200201625000}$	4.	210644·875

X

1. A person received £533¼ for £560 due two years hence. At what rate per cent per annum is the discount (true) calculated?

2. Which is the better investment, the 3½ per cent at 98½, or the 3 per cent at 89½?

3. Three persons, E, F, and G, go into partnership, E continued his share of the stock for 4 months and claimed ⅓ of the profits; F continued his for 9 months, and G continued his stock of £550 for 8 months and received ½ the gain. Find the amount of E's stock.

4. How much will it cost for papering a room 19 feet 8 inches wide, 24 feet 4 inches long, and 13½ feet high, with paper 2¾ feet wide, which costs 11 shillings per piece of 12yds, the windows and parts not requiring paper making up ⅛ of the whole surface?

Y

1. A merchant invests £6200 in the 3 per cent at 89⅓, and pays income tax of 10d. in the £, but on the stock rising to 92, he sells out, and invests the proceeds in £50 railway shares which yield an annual dividend of 3½ per cent clear of income-tax. Find the alteration in his income.

2. A bill of £999 is due in such a time that £80 would in same time amount to £83½. What discount should be allowed for ready payment?

3. The difference between the interest of a certain sum for one year, and the discount on the same sum due 1 year hence at 5 per cent is £1. Find the sum.

4. A watch which is 4 minutes 8$\frac{4}{17}$ seconds too fast at ½ past nine on Wednesday, loses 2 minutes 45 seconds daily. What will be the time by the watch at a quarter past five on the following Saturday?

Z

1. In a cistern there are two taps, one will empty it in four hours, the other in 6 hours. How long will it take to empty the cistern if both taps are turned on together?

2. A grocer buys 12lbs. of tea and 25lbs. of an inferior quality for the total cost of £4⅓, but if the better quality rises 2½ per cent and the inferior quality falls 4½ per cent, the same quantities would cost £4 5s. 11d. How much is the tea a lb.?

3. A merchant invests the present worth of £30192 (due 6 months hence at 4 per cent per annum) in the 3 per cent consols at 92½. What will be the half-yearly dividend after the Income Tax has been deducted at 1s. 4d. in the £?

4. If 6 yards of Hamburg are equal to 5 in Holland, and 7 in Holland are equal to 4 in France, and 5 in France equal 5 in England. How many yards of Hamburg will equal 100 yards English?

5. A cistern is emptied by three men, A, B and C, by means of two pumps of the same bore; A and B went to work first making 37 and 40 strokes, respectively, a minute, but after five minutes they make each five strokes less a minute, and after ten minutes more A gave way to C who worked at the rate of 30 strokes a minute; the cistern was emptied in 22 minutes altogether, and the men were paid 12s. 7d. for their labour. What was B's proper share?

EXAMINATIONS.

A

1. If a tub has a leak which will empty it in ten hours, and a tap which will fill it in two hours, in what time will the tub be full, turning both taps on together?

2. The discount on a sum (due 12 months hence) at 5 per cent is £15. What is the sum?

3. If the weekly receipts of a mining company average £2117 8s. 0d. from coal, and £2683 7s. 6d. from iron, and the monthly (calendar) working expenditure is £13307 7s. 2d.—(the capital is two millions)—what interest can they pay per £100 share?

4. A merchant selling off states that he will make a reduction of ten per cent off ordinary prices. At what price did he mark boots which he wanted to sell for 5s. 3d.?

B

1. A gentleman having $3\frac{7}{11}$ of $\frac{10\frac{1}{2}}{4\frac{2}{7}}$ of $\frac{7}{7\frac{1}{2}}$ of $\frac{11}{14\frac{2}{3}}$ of 27 shillings in his purse met a man and woman begging, he gave $\frac{1}{4}$ of $\frac{2}{3}$ of his money to the man and $\frac{2}{5}$ of the remainder to the woman. What did the woman get?

2. If 12 yards of silk and 25 yards of cambric together cost £4 6s. 8d., but if the silk rises $2\frac{1}{2}$ per cent and the cambric falls $4\frac{1}{2}$ per cent, the same quantities would have cost £4 5s. 11d., what is the silk per yard?

3. If the present worth of £30192 (due 6 months hence at 4 per cent) be invested in the 3 per cent consols at $92\frac{1}{2}$, what will be the half-yearly dividend after a reduction of 1s. 4d. in the £ for income tax?

4. Find the quantity of stock purchased by investing £504 in the $2\frac{1}{2}$ per cents at 96.

C

1. If three quantities of sugar at 4s. 4d., 4s. 2d., and 3s. 8d. per stone respectively make a mixture of 17cwt.—(there are 6 stone more of the first kind than of the second and third together, and 5 stone more of the third kind than of the second). What is the worth of the mixture per stone?

2. What ready money will discharge a debt of £528 9s. due 4 months hence at $4\frac{1}{8}$ per cent?

3. A certain number of men, twice as many women, and three times as many boys earned £$7\frac{3}{4}$ in five days; each man earned 1s. 6d. per day, each woman tenpence per day, and each boy 8d. per day. How many men women and boys were there?

4. A person gets an income of £35 from the 5 per cent at 108. What sum did he pay for his stock?

D

1. A watch which is 4 minutes $8\frac{8}{37}$ seconds too fast at half-past nine on Wednesday, loses two minutes forty-five seconds daily. What will be the time indicated by the watch at a quarter past five p.m. on the following Saturday.

2. Three men, Tom, Joe, and Jack, take 2 pumps of the same bore to empty a well. Tom and Joe go to work first making 37 and 40 stokes per minute respectively; after five minutes they make each 5 stokes less per minute, and after ten minutes more, Tom gives way to Jack, who works at the rate of 30 strokes a minute. In 22 minutes the well is emptied, and the men are paid 12s. 7d. for their labour. Find Joe's share.

3. A shopkeeper buys buns at 9d. per dozen, and sells them at 9 for 1s. What does he gain per cent?

2. Find the brokerage on £689 17s. at 12½ per cent.

E

1. When the 3 per cent are at 89⅛, a man invests £6200, and pays income-tax 10d. in the £1. On the stock rising to 92 he sells out, and invests the proceeds in £50 railway shares, which yield a yearly dividend of 3½ per cent clear of income tax. Find the alteration in his income.

2. Into which is it most advantageous to buy—the 3 per cent at 98⅝, or into the 3½ per cent at 106¼.

3. A grocer buys 56lbs. of tea at 4s. 2d. per lb., and mixes it with other tea, which cost him 2s. 11d. per lb. How much of the latter must he mix with the former, that he may gain 20 per cent on his outlay, and sell the mixture at 3s. 8d. per lb.

4. Dan can do a piece of work in 10 days, Eric in 9 days and Fred in 12 days. They all begin together, but only Fred continues until the work is finished; Dan leaving it in 3⅗ days and Eric 2⅖ days before its completion. In what time will it be finished?

F

1. If of a regiment of 750 men 32 per cent are in trenches, 26 per cent are in hospital and the rest in camp, how many are there in trenches and camp respectively?

2. If £1 is the difference between the interest of a certain sum 1 year, and the discount on the same sum due 1 year hence at 5 per cent, find the sum.

3. The sum of £434 is due as follows: ⅓ of it in 4 months; ⅓ of it in 5 months and the remainder in 7 months. Find the equated time for 1 payment of £434, according to mercantile discount.

4. If the length of a pane of glass be 11½ inches, and its breadth 5¼ inches, how many square feet of glass would there be in a window having 16 such panes.

G

1. Arthur can mow 2½ acres in 6⅝ hours, and Bob 2⅛ acres in 5½ hours. They mow together a field of 10 acres. What time will they be in mowing it?

2. Find the value of 27312½ shillings + ⅓ of half-a-crown + $\frac{4}{15}$ of a sovereign + ·012 of five crowns − 11s. 1½d.

3. Find the L.C.M. of ·40, ·17, ·28, ·21, ·68 and ·119.

4. A man, having 10000 guineas, bought a house for 1000 guineas, and invested the remainder in the 3 per cents at 81, and sells out when they have sunk to 67½. How much does he lose by the transaction?

H

1. A shopkeeper marks his goods in two ways, one for cash, and the other for 12 months credit, allowing discount at 5 per cent. If the credit price be marked £2 9s., what is the ready money mark.

2. Two persons A and B joined partnership, A puts in £1800, and B puts in £2200. At the year's end they have gained £720. What is A's share of the profits?

3. If £1400 be divided among a man, woman, and boy, in such a way that as often as the man gets £5 the woman gets £4, and as often as the woman gets £3 the boy gets £2, find the woman's share.

4. What is the true discount on £149 0s. 5d. due 11 months hence at 4 per cent.

I

1. Find the brokerage on £345 at $\frac{1}{8}$ per cent.

2. If 11 tons 5cwt. of hay be eaten by 10 cows and 45 sheep in ten days. What quantity of hay will be required to last twelve cows and eighteen sheep for a fortnight? (5 cows=9 sheep.)

3. What quantity of stock must be purchased at 88 in order that by selling out when the stocks are at 90, £21 may be gained?

4. Find the cost of making a person's dress, which requires seventeen yards of silk at the rate of $4\frac{1}{16}$s. for $\frac{3}{4}$ of a yard, trimmings &c. $11\frac{7}{16}$s, and making $23\frac{3}{8}$s.

J

1. If at an iron foundry 6000lbs. of iron are cast off in 24 hours; how many tons weight will be cast off in 308 days, working at the rate of 16 hours daily?

2. Find the value of 3d.·5 + ·3s. + £·3

3. How much did I pay for my stock if I get an income of £35 from the 5 per cent at 108?

4. Two persons A and B entered into partnership, A puts into stock at first £2000, and at the end of 8 months £1000 more; B put into stock at first, £750, and at the end of 4 months £3000, but took out £1300 at the end of three months more. At the year's end they had gained £1635. What sum should A get of the profits?

K

1. If teas are bought 3s. and 4s. the lb., and mixed in the proportion of 4 : 7, what will be gained per cent by selling the mixture at 3s. 9d. the lb?

2. A ship forty miles from the shore springs a leak which admits $3\frac{3}{4}$ tons of water in 12 minutes. 60 tons would sink her, but the ships' pumps throw out 12 tons per hour. Find the average rate of sailing per hour so that she may reach the shore just as she begins to sink.

3. Find the value of a house if ·04 of it cost £23.

4. How many boxes 3 feet 6 inches long, 2 feet 8 inches broad, and 2 feet 6 inches deep, can be stowed away in a ship's hold which is 99 feet long, 40 feet broad, and 5 feet deep, leaving a gangway 4 feet broad?

L

1. In a cistern there are two taps A and B. A can fill it in 4 hours and B in six hours. In what time can they fill it together?

2. A person selling a mortgage of £4410 for which he received 5 per cent interest, and bought into the $3\frac{1}{2}$ per cent bank stock at 70, after receiving the interest for 5 years and the stock rising to 75, he sold out. What was his gain on the whole transaction over what he would have received had he continued the mortgage?

3. If the expenses of 7 persons for 3 months amount to 70 guineas, what will be the expenditure of 10 persons for 12 months at the same rate?

4. Find the equated time for one payment of £434 according to mercantile discount, if the sum had been due as follows, viz. :—$\frac{1}{3}$ of it in 4 months, $\frac{1}{3}$ in five months, and the remainder in 7 months.

M

1. A and B can do a piece of work in 15 and 18 days respectively. They work at it together for 3 days, when B leaves, but A continues, and after 3 days is joined by C, and they finish it together in 4 days. In what time could C have done it himself?

2. Find the income derived by investing £1008 in the 3 per cents at 84.

3. How much per cent is 5·3 of 11080·5?

4. A draper announces a reduction of 10 per cent off market prices. At what rate per yard did he mark silk which he wanted to sell at 5s. 3d?

N

1. I receive £533 6s. 8d. for £560 due 2 years hence. At what rate per cent per annum is the discount (true) calculated?

2. A cistern has 2 pipes, A and B. A can fill it in 9 hours and B in 10 hours. The cistern is now half full of water. It can also be emptied by two taps, C and D, in 12 and 8 hours respectively. If A and D are turned on for 3 hours, then B is also turned on for the next 2 hours, then A and D are turned off and C is turned on for the next 8 hours, after which all are shut. The cistern now contains 95 gallons more than its half content. Find the content of the cistern.

3. What is the interest got for money invested in the 3 per cents when the are at 66⅔.

4. Find the true discount on £409 5s. 0d., due 11 months hence at 4 per cent.

O

1. A person invests the present worth of £60384, due 6 months hence at 4 per cent per annum, in the 3 per cents consols at 92½. What will be his half yearly dividend after the deduction of Income Tax, 1s. 4d. in the £?

2. Find the discount on £2686 5s. 10d., drawn February 29, at 3 months, discounted April 27 at 3¾ per cent.

3. How much stock must be bought at 88 per cent in order that by selling out when the stocks are at 90, 20 guineas may be gained?

4. To the true discount on £2,774 19s., drawn May 31st at 4 months, discounted September 3rd at 4 per cent, add the simple interest on £2 3s. for 1 year at 25 per cent.

P

1. A person buys six hundredweight of tea at 1s. 3d. per lb. He loses one-third of it. At what rate per lb. must he sell it to gain cent per cent.

2. What is the interest obtained for money invested in the 3 per cents when they are at 66⅔.

3. At the end of five years a sum of money amounted to £656 5s., at 5 per cent. What was the sum?

4. Add together the compound interest on £500 for 6 years at 3 per cent, and the simple interest on £10663 for 2 years at 2½ per cent.

Q

1. Find the income derived by investing £1,008 in the 3 per cents at 84.

2. Three men, E, F and G entered into company, F continued his stock for nine months, E continued his share of the stock for four months and claimed $\frac{1}{5}$ of the profits, and G continued his stock of £550 for eight months and received $\frac{4}{9}$ the gain. Find E's gain.

3. Add together the simple interest on £9,510 17s. 8½d. for 2 years at 2 per cent, and the compound interest on £450 for five years at 6 per cent. Interest payable half-yearly.

4. The discount on a sum due 1 year hence at 5 per cent interest is £30. What is the sum?

R

1. What income is got by investing £1068 in the 4 per cents at 89?

2. Add together the simple interest on £4046 12s. 8d. for 2 years at 5 per cent, and the compound interest on £860 for 3 years at 5 per cent.

3. A and B entered into partnership, A had £1800 and B £2200. At the year's end they had gained £1440. What is A's share of the profits?

4. If a cistern can be filled by 2 pipes in 5 and 10 minutes respectively. and emptied by 2 taps in 8 and 20 minutes respectively, in what time will it be before it contains $\frac{1}{15}\frac{2}{0}$ of its total contents, if all the taps are turned on together.

S

1. What ready money will discharge a debt of £528 9s. 0d. due 4 months hence at $4\frac{7}{8}$ per cent?

2. A certain number of men, twice as many woman and 3 times as many boys receive £7 15s. 0d. for five day's labour; each boy earned 8d. per day, each woman 10d. per day and each man 1s. 6d. per day. How many men, women and boys were there?

3. To the Simple Interest on £176 12s. 0½d. for 2 years at 5 per cent add the Compound Interest on £750 for 3 years at $2\frac{1}{2}$ per cent.

4. Find the G.C.M. of 5712 and 7344.

5. A cask can be filled by 2 pipes A and B in 10 and 20 minutes respectively, and emptied by a tap C in 15 minutes. In what time will it be four-fifths full, if A, B and C are turned on together?

T

1. The wages of a certain number of men amount to £7776 at 3s. 4d. per day; they worked as many days as there were men employed. How many men were there, and how much did each receive?

2. Divide £1400 among X, Y and Z in such a way that as often as X gets £5 Y gets £4, and as often as Y gets £3 Z shall get £2. Find Y's share.

3. Find the true discount on £1678 8s. 4d., drawn March 6th at 7 months, discounted September 15 at 5 per cent.

4. After running out of a cistern $\frac{1}{4}$ of its content and then one-third of the remainder, and again $\frac{1}{8}$ of what was left; then there remains in the cistern 270 gallons. How many gallons could the cistern hold?

U

1. If I lose $1\frac{1}{4}$ in 3s. 4d., what do I lose per cent?

2. A person buys 56lbs. of tea at 4s. 2d. per lb., and mixes it with some which cost him 2s. 11d., per lb.; how much of the latter must he mix with the former to enable him to sell the mixture at 3s. 8d. per lb., and gain 20 per cent on his outlay?

3. A gentleman having 2 purses, empties one by paying £588 15s. $9\frac{1}{2}$d. for a carriage. Out of the other he pays $\frac{2}{5}$ of its contents for a railway ticket, $\frac{3}{8}$ of the remainder for dinner, he has left 6s. $8\frac{3}{4}$d. What sum had he at first in the two purses?

4. Teas costing 10d., 1s., and 1s. 2d. per lb., are mixed in equal quantities, and the mixture sold at 2s. 8d. per lb. What is the gain per lb.?

V

1. If a person's estate produce £400 a year, and the land tax be assessed at 2s. 9d. in the £, what is his net annual income?

2. £1 is the difference between the interest of a certain sum, forty, and the discount on the same sum due 1 year hence at 5 per cent. Find the sum.

3. Add together the simple interest on £5028 12s. 0·08d. for 2 years at 5 per cent, and the compound interest on £950 for 2 years at 4 per cent.

4. Find the true discount on £1831 12s. drawn September 12th at 5 months, discounted January 13th at 4 per cent.

W

1. What is the gain per cent if teas costing 1s. 8d., 2s., and 2s. 4d. a lb. are mixed in equal quantities, and the mixture sold at 2s. 8d. per lb.?

2. A father left $\frac{1}{2}$ − £140 of his money to his eldest son, $\frac{1}{4}$ + £20 to his second son, $\frac{1}{3}$ − £220 to his youngest son, and $\frac{1}{4}$ to his wife. Find the eldest son's share.

3. Find the G.C.M. of 16960, 38160, and 2650.

4. If a gentleman's estate produce £800 a year, and the land tax be assessed at 2s. 9d. in the £. What is his net annual income?

5. To the simple interest on £6470 4s. 11·52d., for 5 years at 2 per cent, add the compound interest on 650 for $2\frac{1}{2}$ years at 6 per cent.

X

1. Find the value of $\dot{2}8571\dot{4}$ of £30 + $6\cdot\dot{8}5714\dot{2}$£ + $\cdot\dot{6}$ of $\dot{7}14285$ of £6 + £514 8s. $6\frac{1}{7}$d. + $1\cdot\dot{3}$ of 428571s.

2. If I, by selling a mortgage of £8820 for which I received 5 per cent interest, bought into the $3\frac{1}{2}$ per cents bank stock at 70, after receiving interest for 5 years, on the stocks rising to 75 I sold out. What was my gain on the whole transaction over what I should have received had I continued the mortgage?

3. To the simple interest on £59 6s. $6\frac{9}{10}$d. for 2 years at 5 per cent add the difference between the simple and compound interest on £365 4s. $8\frac{1}{4}$d. for 3 years at 4 per cent.

4. A newsagent buys almanacks at 4½d. per dozen, getting 13 to the dozen, and sells them at 1d. each. What does he gain per cent?

Y

1. How many labourers are there on a farm if 20 men more than ⅓ are reaping, and the remainder, 20 more than ⅓, are at other work?

2. The 3 per cent stock is at 98⅜, and the 3½ per cent 106¼. Into which is it most advantageous to buy?

3. A person buys papers at 9d. per dozen, receiving thirteen to the dozen. What is the gain per cent?

4. Find the value of (£1091 7s. $8\frac{5}{17}$d. ÷ 2) + ⅜ of 2·625 guineas.

Z

1. Find the value of ½ of £1120 9s. 2½d. + 1·2 of 3·5 of 4·375 pence + 1·83 of $\cdot 95\dot{4}$ of $\cdot\dot{4}28571\dot{4}$ of 4·5 pence.

2. If 2 tons 6cwt. 0qr. 20lb. of turnips last 12 horses for 15 days, what quantity will be required to keep 9 horses during the months of January and February in 1884?

3. A person has an income of £2364 9s. 7½d., from the 3 per cents; he bought the stock when it was at 96. What did he pay for it?

4. To the Simple Interest on £410 11s. 0½d. for 4 years at 5 per cent, add the difference between the Simple and Compound Interest on £41 13s. 4d. for 2 years at 5 per cent.

Test.

1. If a bankrupt has good debts to the amount of £456 18s. 3d., and the following bad debts: £360 7s. 6d., £120 13s. 0d. and £21 4s. 0d., for which he receives respectively 4s., 5s. and 10s. in the £—his own liabilities are £4558. What can he pay in the £1?

2. Out of a cask of sugar weighing 4cwt. 98lbs., how many 6lb. and 8lb. parcels can be made so as to have the same number of each?

3. What will be the half yearly dividend, after the deduction of Income Tax, 1s. 4d. in the £, if a man invests the present worth of £30192 (due 6 months hence at 4 per cent), in the 3 per cent Consols, being 92½.

4. What ready money will discharge a debt of £523 9s. 0d. due ⅓ year hence, at 4½ per cent?

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